

SAMPLE AGREEMENT

AGREEMENT NUMBER

REGISTRATION NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below:

STATE AGENCY'S NAME

Department of Forestry and Fire Protection

CONTRACTOR'S NAME

2. The term of this Agreement is: Upon Approval through June 30, 2020

3. The maximum amount of this Agreement is: \$0.00

4. The parties agree to comply with the terms and conditions of the following exhibits which are by this reference made a part of the Agreement:

Exhibit A – Scope of Work	21	pages
Attachment 1 – Additional Specifications	7	pages
Attachment 2 – Maps & Site Plans	55	pages
Attachment 3 – Reporting Operating Costs form	1	pages
Attachment 4 – Daily Water Use Form	1	page
Exhibit B – Budget Detail and Payment Provisions	2	pages
Exhibit C* – General Terms and Conditions	GTC	610
Exhibit D – Special Terms and Conditions	2	pages
Exhibit E – Additional Provisions	7	pages
Exhibit F – Digest of Laws Related to Association with Prison Inmates	1	page

Items shown with an Asterisk (*), are hereby incorporated by reference and made part of this agreement as if attached hereto. These documents can be viewed at www.ols.dgs.ca.gov/Standard+Language

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR

CONTRACTOR'S NAME (if other than an individual, state whether a corporation, partnership, etc.)

BY (Authorized Signature)

DATE SIGNED(Do not type)

PRINTED NAME AND TITLE OF PERSON SIGNING

ADDRESS

STATE OF CALIFORNIA

AGENCY NAME

Department of Forestry and Fire Protection

BY (Authorized Signature)

DATE SIGNED(Do not type)

PRINTED NAME AND TITLE OF PERSON SIGNING

Helge Eng – Deputy Director, Resource Management

ADDRESS

PO Box 944246, Sacramento, CA 942

**California Department of General
Services Use Only**

☐ Exempt per: _____

SCOPE OF WORK

1. The State of California, Department of Forestry and Fire Protection (CAL FIRE) hereinafter called the STATE agrees to sell to [purchaser name] of [address], hereinafter called the PURCHASER and the PURCHASER agrees to purchase from the STATE, all the live timber designated for cutting by the STATE, and merchantable as hereinafter defined at the rate and in strict conformity with the requirements and conditions hereinafter set forth for sawlogs and other merchantable material; the PURCHASER further agrees to do other work as herein specified.

PURCHASER shall provide all materials, labor, equipment, tools, permits, taxes and fees described herein and in strict conformity with the requirements and conditions hereinafter set forth for sawlogs and other merchantable material.

A. Timber Sale Location.

All live timber designated for cutting by CAL FIRE and merchantable as hereinafter defined, on a combination of two harvest units, Harvest Unit 1 (157 acres) and Unit 2 (67 acres). The total harvest area of 224 acres is designated on the ground by the STATE's assigned Timber Sale Officer prior to cutting in parts of Sections 11, 12, 15 and 16 Township 17 North, Range 17 West, MDB&M, in the Jackson Demonstration State Forest approximately 3 miles northeast of Mendocino village, Mendocino County, California, and as designated on the attached map (Exhibit A, Attachment 2) which hereby is made part of this Agreement.

B. Sale Harvest Boundary.

The boundaries of the sale area have been marked as depicted on the attached map (Exhibit A, Attachment 2) and have been examined by the PURCHASER. Sale boundaries are composed of two harvest units of about 224 acres within the 850 acre approved South Fork Caspar Timber Harvest Plan (1-16-124 MEN). Throughout the sale areas, pink and lime combination flagging marks the sale unit boundaries. These boundaries are shown on the attached maps (Exhibit A, Attachment 2) and where mapped adjacent to a road or landing, the travel limit for heavy equipment is the road or landing. All trees marked for cutting, whether merchantable or not, shall be felled by the PURCHASER, unless specifically reviewed and waived by the Timber Sale Officer. In the two Variable Retention Units, the same specifications for marked trees mentioned above applies to ALL trees not marked for retention with ORANGE paint. No dead standing conifer trees or unmarked hardwood trees shall be felled except as provided for elsewhere in this Agreement. The PURCHASER agrees to log the merchantable conifer timber and fell unmerchantable conifers and hardwoods designated for cutting as described in this Agreement. The STATE does not guarantee the amount of timber designated in the estimate.

2. GOOD FAITH PERFORMANCE.

- A. By having submitted his or her bid and entering into this Agreement, the PURCHASER hereby declares the intention to timely harvest and removal of the timber designated for cutting within the harvest area described herein. If it appears to the Timber Sale Officer that the PURCHASER does not have a good faith intention to perform the scheduled harvesting, the PURCHASER shall be provided a hearing with a STATE manager who is not directly involved in operations at Jackson Demonstration State Forest in order to provide the PURCHASER with an opportunity to explain why the STATE ought not to terminate the Agreement. The STATE manager who administers the hearing shall consider all documentation and testimony provided by the STATE and the PURCHASER, and such materials shall constitute an administrative record upon which his or her decision shall be entirely based. If the STATE manager determines that the PURCHASER's intent is to not perform the specified harvesting in a timely manner: 1) the Agreement between the STATE and the PURCHASER shall be immediately terminated based on the PURCHASER's failure to perform substantial and material term(s) of the Agreement, constituting a breach of contract; 2) the PURCHASER shall be liable to the STATE for reasonable damages associated with breach; and 3) the contract may be awarded to the next highest bidder.
- B. This contract includes work to be done as mitigation for the effects of timber operations. This work can include activities in direct mitigation, off site mitigation, or compensation for the impacts of timber operations. It includes road work, road abandonment, installing water breaks and rolling dips, reshaping, crowning, outsloping new and existing road surfaces; all work done to ensure that timber operations do not result in significant effect on the environment.

- C. The merchantable species, estimated net merchantable amount by the Revised Scribner Log Rule as prepared by the Northwest Log Rules Advisory Group, July 1, 1972, the rate of payment per thousand board feet, and the estimated total value are as follows:

Merchantable Species Value	Estimated Net Amount (Mbf)	Rate per Mbf	Estimated Total
Redwood	3,874	[/mbf]	\$ [total value]
Douglas - fir	1,421	\$100/Mbf	\$ 142,100
Grand fir, Western Hemlock, miscellaneous other conifers	364	\$100/Mbf	\$ 36,400
TOTALS	5,659		\$ [combined total value]
Estimate confidence interval = 25%	+/- 1,415		+/- \$ [25% of combined total value]
Maximum contract amount	7,074		\$(combined total value+25%)

The 25 percent confidence interval represents the statistical variation that can be expected around the estimated sale value.

Figures for the VR Units are derived from rough cruise numbers.

- D. All timber removed by reason of this sale shall be 100 percent scaled by a recognized, independent, third party scaling organization at the PURCHASER's expense. Additional provisions governing scaling appear elsewhere in this Agreement.
- E. JDSF is a participant in a FSC-certification program (certification number, SCS-FM/COC-00001GN).

3. SCHEDULING

A. **PRODUCTION RATE/PAYMENT SCHEDULE**

Unless written extension of time is granted by the Director of Forestry and Fire Protection, within Unit 2 all merchantable timber designated for cutting shall be paid for, felled and delivered, and all other timber operations, shall be complete by **August 31, 2018**. Within Unit 1, both the sub watersheds (POR and OGI) must be paid for, cut, yarded and delivered by **October 15, 2018**. Additionally, Road Systems 21, 22, and 23 cannot be used after October 15th, 2018. All areas that utilize the afore mentioned road systems for access must have all merchantable timber designated for cutting paid for and felled, and all other timber operations, completed by October 15th, 2018. These dates may be extended or the required volume may be adjusted mutually by the STATE and the PURCHASER due to unforeseen circumstances. Furthermore, strict noise restrictions limit the timing of access to portions of Unit 1. Please see Attachment 2 for a full discussion of timing restrictions. All remaining merchantable timber designated for cutting shall be paid for and felled, and all other timber operations shall be completed by **October 15, 2019**. This Agreement shall terminate on **June 30, 2020**, by which date all requirements of the Agreement must be completed.

All Road Point must be completed by October 15, 2018.

The STATE may grant an extension of operating time to complete operations on terms and conditions as may be specified by the STATE. No extension of the specified payment schedule shall be granted unless the PURCHASER pays, in advance, an interest payment on the outstanding timber value owed the STATE under the contract. Interest shall be payable at 0.684 percent per annum, prorated for the term of the extension. The "outstanding timber value" shall be the original contract timber value established by cruise estimate, or specified portion thereof, less the sum of payments received by the STATE as of the applicable designated payment date. Upon completion of harvesting operations, the STATE shall recalculate the interest due based upon the actual value of timber removed and the actual monthly unpaid balance during the term of the extension and adjust the final payment accordingly. Operating time extensions granted under this provision shall not alter any scheduled progress payments required above. Operating time extensions shall not be granted if said scheduled progress payments have not been received by the STATE, or if any other contractual requirements have not been met by the PURCHASER.

Once timber harvesting operations have commenced, the PURCHASER agrees to continue operations at a normal production level until all contractual provisions are completed unless shutdowns are required by wet soil conditions, hazardous fire conditions, or are otherwise approved by the Timber Sale Officer.

B. PRIOR APPROVAL FOR CONDUCTING BUSINESS ON WEEKENDS/HOLIDAYS

The PURCHASER shall notify and obtain approval from the STATE in advance on each occasion of conducting timber operations in the sale area on weekends or State holidays.

Timing restrictions apply to logging truck traffic on County Road 409. On the paved portion of County Road 409, logging trucks may only travel between 6 am and 6pm. To avoid school traffic during the school year, logging traffic may not use the paved section of County Road 409 from 8:30-9:30 am and 12:30-1:00 pm, Monday thru Friday and 3:00-4:00 pm, Monday thru Thursday. On the unpaved portion of County Road 409, logging trucks traffic is limited to 15 mph between Memorial Day and Labor Day, hauling is limited to Monday thru Friday. Additional restrictions for Marbled Murrelet (MAMU) for log hauling along County Road 409 are described below and in THP 1-16-124 MEN, Section II, Item 32.

4. The Project Representatives during the term of this agreement will be:

State Agency: Dept. Forestry and Fire Protection, Jackson Demonstration State Forest	Contractor:/Purchaser
Name: Jason Serna, Timber Sale Officer	Name:
Phone: 707-964-5674 ext. 113	Phone:
Fax: 707-964-0941	Fax:
Email: Jason. Serna@fire.ca.gov	Email:

Direct all inquiries to:

State Agency: Dept. Forestry and Fire Protection	Contractor/Purchaser:
Section/Unit: Business Services – Acquisition Unit	Section/Unit:
Attention: Jeff Kincaid II, Contract Analyst	Attention:
Address: P.O. Box 944246 Sacramento, CA 94244-2460	Address:
Phone: (916) 445-9942	Phone:
Fax: (916) 323-1888	Fax:
Email: Jeff.Kincaid@fire.ca.gov	Email:

5. PURCHASER'S REPRESENTATIVE AVAILABILITY.

At all times, when construction or logging operations are in progress, the PURCHASER shall have a representative readily available to the area of such operations, who shall be authorized to receive, on behalf of the PURCHASER, any notices and instructions given by the STATE regarding performance under this Agreement, and to take such action thereon as is required by the terms of this Agreement.

6. CONTRACT AMENDMENT.**A. Extensions.**

PURCHASER is obligated to satisfactorily complete the work on or before the contract's expiration date. If the work called for under the contract is not completed within the time specified, CAL FIRE shall have the right to extend this agreement for 1 year by amendment at the same terms, conditions and cost or not extend the time limit for its completion as may best serve the interest of the State.

B. Services Quantity.

The Agreement may be amended to increase or decrease services at the rate(s) specified in Exhibit B.

C. Changes.

- 1) If any conflict arises between provisions of the plans, specifications, scope of work, and any such law, then the PURCHASER shall notify the STATE at once.
- 2) Whenever the necessity for a change arises either at the request of the Contractor or at the request of the State, the either party shall prepare a full and completely detailed estimate of cost and time for the change at the direction of the State.
- 3) Changes in the work made necessary due to unexpected or unforeseen site conditions, discovery of errors in plans, specifications, or scope of work requiring immediate clarification in order to avoid a serious work stoppage, or changes of a kind where the extent cannot be determined until completed are types of emergency changes which may be authorized by the STATE.

7. PRODUCTION COST DATA.

The PURCHASER understands that the primary objective of the STATE in entering into this Agreement to log the sale area, which is a part of the Jackson Demonstration State Forest, an experimental forest of the State of California, is to provide a research and demonstration area and to determine the facts and data concerning the timber sale area and the treatment thereof through the actions of the PURCHASER under this Agreement.

The PURCHASER agrees to keep records and furnish the STATE production and cost data with respect to activities conducted pursuant to this Agreement. Required data shall include person-hours and equipment-hours spent on each activity, and applicable rates for employees, machines and supervision, and costs for any materials or services needed for completion of activities required by this Agreement. The information shall be reported on a form provided by the STATE (Exhibit A, Attachment 3), or in an alternative format proposed by the PURCHASER and acceptable to the STATE. The requirement for providing production and cost data shall apply equally to any contractors or subcontractors hired by the PURCHASER to complete the project[s] specified above. This information will be furnished to the STATE before the performance bond or other security is released.

The PURCHASER understands that the protection of research and experimental values, the maintenance of low fire hazards, the prevention of injury to trees not designated for cutting, the creation of conditions favorable to the regeneration of the State Forest, and other provisions of this Agreement are for fulfillment of the research and demonstration purpose, and the provisions of this Agreement will be strictly enforced to that end.

8. DOMESTIC PROCESSING OF TIMBER

The PURCHASER agrees that pursuant to Section 4650.1, Public Resources Code, timber from State Forests shall not be sold to any primary manufacturer, nor to any person for resale to a primary manufacturer, who makes use of such timber at any plant not located within the United States unless it is sawn on four sides to dimensions not greater than 4 inches by 12 inches. The PURCHASER has not sold unprocessed timber harvested from private timberlands and exported it into foreign commerce from California within one year prior to the bid date and agrees to refrain from that activity for one year after contract termination.

The PURCHASER agrees that pursuant to Sections 1515-1521, Title 14, California Code of Regulations, timber in this sale shall not be substituted for timber exported by the PURCHASER obtained from other sources. The PURCHASER further agrees pursuant to Section 1517, Title 14, California Code of Regulations, to give written notice to the STATE of any or all locations where said timber will be processed until such time as the timber has been sawn to dimensions of 4 inches by 12 inches or less. The required written notice shall be provided to the STATE at least one week before commencement of delivery of logs to each processing location.

If the PURCHASER sells, exchanges, or otherwise disposes of said timber before it has received domestic processing, the PURCHASER agrees to require each buyer, exchange, or recipient to execute a written agreement which shall:

- A. Specify domestic processing for the timber involved pursuant to Section 4650.1, Public Resources Code.
- B. Require the execution of said agreement between the parties to any subsequent transactions involving said timber.

The failure of any party to a transaction involving said timber to execute the required agreement shall constitute noncompliance on the part of the PURCHASER with the terms of this provision.

The PURCHASER shall file with the STATE a copy of each such agreement and shall retain for three years from the date of each transaction the records of all sales, exchanges, or dispositions of such designated timber. Upon request, such records shall be made available to STATE.

Any purchaser of timber from State Forests who makes or permits use of said timber in violation of Section 4650.1, Public Resources Code, or Sections 1515-1521, Title 14, California Code of Regulations, shall be prohibited from purchasing State Forest timber for a period of five years and may have his timber operator license suspended for up to six months.

9. LOG BRANDING.

The PURCHASER as required by the Timber Sale Officer shall identify all timber by making a mark with a brand provided by the STATE in a conspicuous place on the end of each log or piece of timber prior to removal from the sale area. Prior approval must be obtained in writing from the Sale Officer regarding any changes in the brand or branding procedure.

10. GENERAL UTILIZATION STANDARDS. *(See Item 12 for Utilization Standards and Practices.)*

The minimum log dimensions for utilization purposes will be 10 feet in length and 8 inches in small-end diameter. However, any material unmerchantable because of size as herein defined, removed at the option of the PURCHASER, shall be scaled and paid for at the same rate as merchantable material.

Any log segment presented for scaling shall be scaled as merchantable which has a net merchantable volume of at least 10 board feet, provided that the log segment has a net merchantable scale of at least 25 percent of the total volume, and provided that firm stain shall not be regarded as defect and no deduction shall be made for same in scaling.

11. SCALING SPECIFICATIONS.

The forest products made and all timber removed by reason of this sale shall be scaled by a recognized independent "third party" scaling organization agreeable to the STATE. Logs will be scaled as presented and results of said scales shall be conclusive and binding upon the PURCHASER and the STATE unless otherwise contested through check scale procedures. Procedures required by the STATE for implementation of "third party" scale shall be as follows:

- A. Logs shall be scaled using the Revised Scribner Decimal C Log Rule, making allowances for visible defect in accordance with the scaling practices contained in the latest National Forest Log Scaling Handbook (Chapters 20 and 30).
- B. Payment for scaling and reporting services performed by the scaling organization shall be made by the PURCHASER of State Forest timber, and the STATE assumes no responsibility in this regard.

If more than one scaling bureau is used, data shall be transmitted to a single scaling bureau designated by the STATE for a single point-source for all reports. All expenses associated with this shall be paid by the Purchaser.

The use of a STATE approved third party log and load reporting service (LLRS) is required. PURCHASER shall ensure that log volume measurement data is received by the LLRS within one business day of logs being measured. All expenses associated with this service shall be paid by the PURCHASER.

Prior to scaling STATE logs, the STATE will provide the scaling organization with a scaler information sheet. The PURCHASER shall insure that all third party scalers who scale STATE logs delivered from this sale are knowledgeable about contract specifications governing scaling requirements under this Agreement.

- C. All loads must be scaled at the first unloading point and within three working days from the date of removal from the State Forest.
- D. The scaling organization or the PURCHASER shall notify the State Forest Manager or the Manager's representative of all scaler rotations of one month or more so that the STATE may obtain adequate check scales.
- E. Organization scalers shall be required to make a copy of the scale tickets available to the STATE on those loads being check scaled by the STATE.
- F. Organization scalers shall perform the following services:
 - 1) Record log species, diameter, length, and amount of defect on the scale tickets and forward such information to the scaling organization on the day of scaling.
 - 2) Scale all logs in a load at the same location and time.
 - 3) Identify with paint those loads that have been scaled and immediately notify the STATE when it is known by the scaler that a load has bypassed or been picked up from the designated scaling location before being scaled. In the event of a missed (non-scaled) load, the PURCHASER shall within five working days account for the load by the following process:
 - a) Average the gross volumes and net volumes of four loads hauled immediately prior to and four loads hauled immediately after the missed load. The ticket numbers of the loads used for calculating the averages shall be provided to the STATE for audit purposes.
 - b) Find a representative existing scaled load that has a gross volume within one percent of the calculated average gross load volume and a net volume within three percent of the calculated average net load volume. The gross and net volumes of the selected load must be equal to or more than the calculated averages. If no representative load can be found then a log load scale ticket must be created which meets these specifications. The STATE retains the right of approval on load selection.

- c) Using the trip ticket number of the missed load, insert the scale ticket data of the representative or created load into the scale reporting system. The load shall be included in the 15 day summary covering the time period when the data was inserted into the system. The STATE shall be notified when this occurs.
- G. The PURCHASER shall notify the STATE of any change on a scale ticket that affects the volume of the original scale after the copy has been mailed to the STATE.
- H. The scaling organization shall process scale tickets of all STATE loads daily and mail (email may be acceptable), at its expense, copies of daily scale certifications and log listings to the State Forest Headquarters. Semi-monthly scaled volume summaries as of the 15th and the last day of the month are required to be mailed to the State Forest Headquarters. Semi-monthly summaries shall provide gross and net volume totals by species. When adjustments are required to compensate for omissions or errors in daily scaled volume summaries, the STATE may request the scaling organization to issue an adjusted summary report for those specified time periods. The PURCHASER shall also be notified by the STATE when such an adjustment has been made.
- I. At least three loads scaled within the previous five operating days shall be left rolled out in the mill yard where scaled to facilitate check scaling, unless otherwise approved by the Sale Officer.
- J. The scaling organization shall conduct a minimum of one check scale per month per scaler during the operating season to document scaler proficiency. Standards for proficiency shall be taken from Section 64 of the National Forest Log Scaling Handbook. Copies of such check scales shall be furnished to the STATE within 10 days of completion of said check scales. The STATE reserves the right to check scale organizational scalers at intervals determined by the STATE.
- K. If, through STATE check scales, it is found that a scaler's work is unacceptable, the STATE will notify the scaling organization and the PURCHASER and request a check scale to be submitted to the STATE within 10 working days. Should remedial action fail to achieve correction, the STATE may immediately terminate the acceptance of the scaler's work until the scaler's competence is mutually certified by all concerned parties. PURCHASER scaling complaints shall be jointly and promptly investigated by the STATE and the scaling organization. The STATE may terminate third party scaling and assume scaling responsibilities at any time if the scaling organization's scale or records are unacceptable to the STATE. The PURCHASER shall pay the STATE a surcharge on stumpage payments of \$5.00 per thousand board feet net scale for all timber scaled by the STATE or by a hired agent of the STATE following termination of third party scaling pursuant to this paragraph.
- L. The maximum scaling length shall be 20 feet. Greater lengths shall be scaled as two or more logs, making allowance for taper. When the scaling lengths into which a log is divided for scaling are unequal, the longer length or lengths shall be considered as lying in, or toward the larger end of the log. Scaling lengths of multiple length logs shall be computed in accordance with the scaling practices contained in the latest National Forest Log Scaling Handbook.
- M. Allowance for trim shall not exceed 6 inches for each 20 feet of length or fraction thereof. Logs overrunning the specified trim allowance shall be scaled to the next higher foot in length.
- N. Logs shall be scaled at the small end and the average diameter inside bark taken to the nearest inch. Logs 21 feet and longer shall be measured at both ends and the average diameter inside bark taken to the nearest inch. Taper in logs 21 feet and over will be distributed according to the latest National Forest Log Scaling Handbook (Chapter 10). Taper in butt logs 21 feet and over shall be distributed according to USFS Supplement 4 dated March 1987, for all species as follows:

DIAMETER TAPER FOR BUTT LOGS 21 FEET AND OVER - ALL SPECIES

<u>Log Length</u>	<u>Taper</u>
21 to 27 feet:	2"
28 to 40 feet:	4"
41 to 51 feet:	6"
52 feet and over:	butt measurement required

- O. The STATE shall provide the PURCHASER with a sufficient supply of five-part load receipts to identify each load of forest products removed. The fifth copy (card stock) shall be affixed to the load and shall stay with the load until decked. The white original shall be retained in the load receipt booklet and returned to the Timber Sale Officer by the operator as called for.

The PURCHASER may, on approval, provide equivalent load receipts to be used in place of the STATE's form. If the PURCHASER's forms are used, the PURCHASER shall provide to the STATE a sufficient quantity of forms for the estimated volume to be removed, prior to commencement of operations, forms to then be distributed to the operator by the Sale Officer. The STATE's copies of the load receipts shall remain in the load receipt booklet until collected by the Sale Officer.

To provide additional identification of loads of forest products removed, the PURCHASER shall paint the last three digits of the load receipt number on the rear end of each of the two outside bunk logs of each load. The PURCHASER shall provide for this purpose a sufficient quantity of high-visibility aerosol paint of a quality and color acceptable to the STATE.

- P. To facilitate monitoring of periodic sale volume harvested, the PURCHASER shall (1) record unit identification on each log load receipt presented to the STATE, and (2) provide a weekly report of feller days and volume felled by unit. Weekly falling information is to be available for collection by the Timber Sale Officer or delivered to the State Forest headquarters no later than the following Tuesday.

12. UTILIZATION STANDARDS AND PRACTICES.

The PURCHASER agrees to the following utilization standards and practices:

- A. Only that merchantable downed timber that is designated by the Timber Sale Officer shall be removed (including unmarked timber in the two Variable Retention areas), and it shall be scaled the same as timber felled under this Agreement. Other downed timber, whether merchantable or not, shall be left in place, except where it occurs within the clearing limits for construction of truck roads and landings. Snags, whether merchantable or not, shall be left standing unless they must be felled for road or landing construction, for cable corridors, for safety reasons, or for fire protection purposes as designated in the Timber Harvesting Plan or by the Sale Officer.
- B. In the two Variable Retention areas, ALL leafy vegetation (trees and shrubs) over 1" DBH that have NOT been marked for retention with orange paint must be cut down prior to November 15, 2018 unless otherwise specified by the Timber Sale Officer
- C. Stumps shall be cut as low as possible and in no case, shall be over 12 inches on the uphill side except where more height is needed to save timber or insure safe working conditions. Stumps which are not cut in accordance herewith and which should have been so cut in the judgment of the Timber Sale Officer shall, at the STATE's option, be either recut to 12 inches or less, if redwood, or paid for at the rate of \$15.00 each. Such payments shall be regarded as liquidated damages in view of the difficulty of determining the actual damage to the STATE through wastage of the quantity and quality of the material involved.

- D. All merchantable conifer trees felled by the PURCHASER shall be utilized to the fullest extent practicable, and at least to a top diameter inside bark of six inches. Maximum log length, including trim, shall be 41 feet unless longer lengths are approved in writing by the STATE.
- E. The PURCHASER shall make every effort to conduct the felling operations to prevent careless or unnecessary breakage of timber. All trees designated for cutting shall be felled within the timber harvesting plan boundaries to the fullest extent practicable, considering locations of watercourses, felling damage, yarding method, and damage to leave trees. No trees shall be felled across the State Forest property line. When topography, lean of tree, regeneration and residual timber, location of roads, landings, watercourses, utility lines and buildings permit, all trees shall be felled in line with skidding direction. Gulch bottoms and other areas of heavy stands of timber as designated by the Timber Sale Officer shall be felled and logged in two or more stages in order to minimize blocked layouts and breakage.

Cable tree-pulling methods shall be used where needed to prevent unnecessary breakage to all trees having volumes in excess of 1,500 board feet, to prevent felling of trees into or across watercourses, or to control felling direction near utility lines, public roads and property lines. Where poor volume recovery is expected because of anticipated breakage, the Sale Officer may specify that individual trees otherwise designated for cutting shall be left standing.

All fallers shall be equipped with falling wedges at all times. Fallers working in the Watercourse and Lake Protection Zones shall have ready access to and be knowledgeable in the use of tree-falling jacks and shall use them as necessary to direct the fall of trees away from watercourses.

- F. Timber wasted in tops, timber wasted by careless or improper bucking, timber broken in careless felling, and any timber merchantable according to the terms of this Agreement which is cut and not removed from any portion of the cutting area when operations on such portions are completed, or before this Agreement expires or is otherwise terminated, unless such wastage or non-removal involves small amounts, and in the judgment of the Timber Sale Officer, is justified by existing conditions, shall be paid for at double the stumpage price in this Agreement. The amounts herein specified shall be regarded as liquidated damages as it will be impractical or extremely difficult to fix the actual damage.

Unless extension of time is granted by the Director of Forestry and Fire Protection, the right, title and interest to any timber for which payment has been made under the provisions of this section shall revert to the STATE without compensation unless it shall have been removed from any portion of the sale area accepted by the Sale Officer by the date of that acceptance as designated in accordance with provisions hereunder.

- F. Cull logs, pine or conifer species not merchantable as defined in the Agreement, removed in separate truck loads from the sale area at the request of the PURCHASER and with the prior written approval of the STATE, shall be paid for by the PURCHASER at the rates set forth in Exhibit B, "Budget Detail and Payment Provisions, Item 2A, "Payment Schedule".
- G. When approved in writing by the STATE, hardwood trees felled, knocked down or damaged by logging operations may be removed by the PURCHASER under conditions prescribed by the STATE. Hardwoods removed from the sale area shall be paid for at the rates set forth in Exhibit B, "Budget Detail and Payment Provisions, Item 2A, "Payment Schedule".

13. TIMBER HARVEST PLAN (South Fork Caspar THP 1-16-124 MEN).

- A. The Forest Practice Rules for the Coast Forest District, and the Timber Harvesting Plan for this timber sale (THP number 1-16-124 MEN), are hereby made a part of this Agreement, and the PURCHASER agrees to comply with each and all of the terms thereof in the same manner as if said Timber Harvesting Plan and Rules and each thereof were set forth at length in this Agreement. Rules or regulations which become effective during the term of this agreement, and any amendments to the Timber Harvesting Plan, shall be adhered to by the PURCHASER to the extent required by law.

Operating conditions and specifications shall be modified as required to comply with changes in the legal status of, or in the laws pertaining to protection measures for, any species under the federal Endangered Species Act. Such modifications shall be agreed upon mutually by the STATE and the PURCHASER.

Timber operations required under this Agreement shall be conducted by a Licensed Timber Operator. On completion of timber operations satisfactory to the Timber Sale Officer on that portion of the Timber Harvesting Plan area for which each Operator is responsible, the Operator shall certify by letter to the STATE that all operations are complete and that they comply with the Forest Practice Rules and the Timber Harvesting Plan. The STATE may prepare annual partial completion reports when it is in the STATE's interest to do so.

Forest Practices and operational procedures in addition to those set forth in the said Rules and Timber Harvesting Plan shall be required as follows:

- 1) A pre-work conference to be attended by representatives of the STATE, the PURCHASER, and all timber operations subcontractors is required before any timber harvesting activities may begin. A detailed logging plan for the sale area shall be prepared and submitted by the PURCHASER to the Timber Sale Officer for approval at least two working days prior to the pre-work conference. The logging plan shall include the locations of any proposed new landings and roads not anticipated in the Timber Harvesting Plan; a schedule of road construction, felling, logging, cleanup, and other operations within the sale area; and the number, types and special requirements of the equipment to be used in the sale area.

Also required are pre-work conferences for any other projects associated with this Agreement, with attendance by representatives of the STATE, the PURCHASER, and all project subcontractors. The PURCHASER is responsible for ensuring that all contractors are provided with relevant portions of any applicable documents, including the Timber Harvesting Plan, the Timber Sale Agreement, and permits from other agencies.

The PURCHASER shall notify the Timber Sale Officer of any changes in the numbers or types of logging equipment or personnel assigned to the sale area that may affect productivity.

- 2) All logging operations shall be by natural logging areas and in an efficient, orderly, and progressive manner, unless otherwise approved by the Timber Sale Officer. The STATE may designate the sequence in which the units are to be logged.

No timber operations shall be conducted after January 31 of any year until the STATE or the PURCHASER has completed required surveys for northern spotted owls, and extension of the No-Take determination has been received from the appropriate reviewing agency. Presence of owls in or near the sale area may impact the conduct, extent or timing of harvesting operations.

Limited timber operations are allowed between November 15 and April 1; all timber operations shall comply with the seasonal operating restrictions described in the Timber Harvesting Plan.

Timber operations include restrictions to marbled murrelet (MAMU) habitat, including noise restrictions within habitat areas along County Road 409 and timber operation restrictions to the MAMU habitat area within Harvest Unit 1. These restrictions and marbled murrelet habitat locations are described in the South Fork Caspar THP 1-16-124 MEN, Section II, Item 32. Additionally, see the MAMU Restrictions Map (Exhibit A, Attachment 2) for an operational synopsis. And the complete CDFW Memorandum on MAMU Habitat restrictions located in (Exhibit A, Attachment 2).

Operational Synopsis of the CDFW Memorandum on MAMU Habitat restrictions:
Road 695- Road Brushing allowed during any season.

Rs- 21 No seasonal operational restrictions.

Rd 694- Although a portion of this falls within the VERY HIGH Restriction area, the approximately 300 foot section of road is approved **for road brushing and maintenance during any season** (from Road 409 to landing 27).

Rs-22. For the portion of the road system that falls within the VERY HIGH noise restriction area, activities are limited to the following activities: log hauling, chainsaw use, normal vehicle use, road construction and reconstruction using dump trucks, dozers, and road graders. The following activities are **restricted** during the March 24-September 15th period: felling trees over 30" DBH, using yarder whistles, using Jake brakes, using a chipper machine. For the 140-foot section of road RECONSTRUCTION within the VERY HIGH noise restriction area, road reconstruction activities are also limited to only falling trees less than 12" DBH during ALL seasons.

The rest of Rs-22, Rd 693, Rd 693A and Rs-23 have no seasonal operational restrictions.

Please see attached maps and memorandum from CDFW for falling and yarding specific restrictions.

- 3) In the sale area not designated for skyline yarding, any method of yarding other than by means of crawler tractor or rubber-tired skidder shall be employed only with the advance approval of the Timber Sale Officer, and under such conditions and restrictions as may be required. Equipment used for skidding logs shall be equipped with winches and fair-leads. Grapple skidding equipment may be used only with the advance approval of the Sale Officer.

The locations of all existing skid trails to be reused and new skid trails to be constructed shall be flagged by the Timber Operator at least two weeks prior to their intended use, failure to do so by the LTO may result in unnecessary delay in harvesting. Timber Sale Officer will be notified when an area has been flagged for skid trails and landings and location approval by the Sale Officer is required prior to use. If timber felling substantially obliterates skid trail flagging, the Timber Operator shall reflag the locations of approved skid trails prior to their construction or reuse. Heavy equipment shall not be operated within cable areas, equipment exclusion zones, or equipment limitation zones unless their use is in compliance with the Timber Harvesting Plan and approved by the Sale Officer. Per Section II of THP 1-16-124 MEN, where ground based tractor operations are proposed on unstable areas, equipment shall be restricted to existing skid trails or those flagged by the RPF prior to operations on an unstable area.

- 4) The width of tractors or other equipment used for skidding purposes shall not exceed 10 feet 6 inches without written permission of the Sale Officer. Rubber-tired equipment shall not be operated off of approved skid trails and truck roads. Tracked equipment shall not be operated off of approved skid trails or roads unless specifically authorized in each case by the Sale Officer.
- 5) Minimum distance permitted between new skid trails will be 100 feet measured along the surface of the ground unless specifically waived in each case by the Sale Officer.

Tractors shall not be used to forward logs on well established truck roads (bed and grade established) unless specifically approved by the Sale Officer.

At all times of the year, erosion control structures shall be installed on all skid trails and temporary or seasonal truck roads within 30 days of completion of their use, or at the end of the day if the U. S. Weather Service forecast is a "chance" (30 percent probability or more) of rain before the next working day, or at any time that the equipment needed to install such structures leaves the sale area.

The Timber Sale Officer may suspend timber operations in whole or in part when environmental damage may result from the operation of equipment in logging or hauling the timber included in this Agreement. Operations shall not resume until approval is given by the Sale Officer.

- 6) No unnecessary damage shall be done to regeneration, hardwoods, and leave trees. To the greatest extent feasible, leave trees greater than 12 inches DBH shall not have bark torn back from the bole of the tree by log skidding equipment, whether by ground-based or skyline yarding equipment. Leave trees damaged in logging shall be cut and paid for, if so required by the Timber Sale Officer. Trees specifically marked for leave, and all unmarked trees in watercourse and lake protection zones, shall be protected to the fullest extent feasible.

- 7) Each merchantable tree that is felled shall be bucked to log lengths, limbed to the 8-inch top, and the top bucked at the time of felling. Felled hardwoods and unmerchantable conifers shall be topped to the 6-inch top at the time of felling. This requirement shall apply to marked trees, including marked hardwoods and pines and also to any unmarked trees felled for safety reasons, in clearing for road or landing construction, as directed by the Timber Sale Officer for cutting of damaged trees, or as otherwise necessary for the conduct of harvesting operations.
- 8) All slash created by timber operations within 100 feet of county road 408 and 409 shall be lopped to the extent that no portion shall remain over 12 inches above the ground for the first 50 feet and 24 inches above the ground for the remaining 50 feet. Prior to October 15 of each operating season, and concurrent with lopping activities conducted after that date, slash and other logging debris shall be removed from truck road surfaces, cut banks, ditches and berms, and from the inlets and outlets of culverts, unless otherwise directed by the Timber Sale Officer.
- 9) To reduce fire hazards, concentrations of slash and logging debris created by the logging operations around landings or located within the sale area shall be piled and isolated for burning as specified by the Timber Sale Officer; or, where designated, landing slash shall be placed to block skid trails where they lead onto truck roads or landings, or shall be spread along skid trails and packed by dozer track to reduce erosion. Waste piles shall be kept substantially free of soil. On slopes greater than 20% where piles are to be burned, they shall be isolated by building a 10-foot wide fire line to mineral soil using hand tools. On slopes of 20% or less a dozer may be used to build the fire line. Fire lines shall be waterbarred at the time of construction.

Where slash is piled for burning, the PURCHASER shall provide a sufficient quantity of 80 lb water resistant kraft paper and shall cover a minimum 10-foot by 20-foot section near the center of each pile, weighting the paper adequately to hold it in place during windy weather.

In order to utilize wood residues and reduce fire hazards, logging wastes on landings on permanent and seasonal roads shall be segregated into large materials which can be utilized by firewood cutters, and other wastes such as bark, branches, etc. For the purposes of this section, material at least 8 inches in diameter and 6 feet in length shall be considered suitable for firewood. On completion of use of each landing, firewood material shall be placed in a stable position where it can be reasonably utilized by firewood cutters.

- 10) Section corners, quarter section corners, meander posts and bench marks shall not be destroyed, defaced or removed to another place, nor shall any witness trees be cut or scarred. Should corners, meander posts or bench marks be accidentally destroyed, the PURCHASER shall be responsible for their replacement by a licensed land surveyor, and all notes, plates or records shall be delivered to the STATE for its approval and files.
- 11) Timber to be harvested in the area designated for cable logging on the attached timber sale map (Exhibit A, Attachment 2) shall be yarded using a standing, live or running skyline system which meets the following requirements:
 - a) Holds the skyline carriage stationary until logs are yarded laterally to the skyline corridor.
 - b) Can yard laterally a distance of at least 100 feet perpendicular to the skyline corridor.
 - c) Supports logs clear of the ground as the carriage moves along the skyline when logs are above Class I or II watercourses and, to the greatest extent feasible, within Class I or II Watercourse Lake Protection Zones to avoid unnecessary damage to riparian soil and vegetation. In other locations, logs shall be yarded with at least one end suspended, provided logs follow directly behind the skyline carriage.
 - d) Is capable of yarding for a slope distance of approximately 1,800 feet from the landing, and which can reach a slope distance of approximately 2,200 feet to the tailhold.
 - e) Can be used to pull trees against their lean.

The practice of tight-lining to move yarder lines to their next position shall not be used.

- 12) The locations of all cable corridors shall be flagged and mapped by the Timber Operator for approval by the Timber Sale Officer prior to rigging. The distance between corridors shall not be less than 200 feet at the back of the cable road without approval of the Sale Officer. Specific approval from the Timber Sale Officer is required for backside yarding across any designated watercourse.
- 13) Except in the Watercourse and Lake Protection Zone, unmarked trees within approved yarder cable corridors may be felled before rigging and yarding, but not to exceed a pre-cut corridor width of 10 feet as determined by the centerline of the entire corridor from the yarder location to the tailhold, or wider if approved in advance in each case by the Sale Officer. Within the Watercourse and Lake Protection Zone, only those trees not designated for harvest which directly interferes with the movement and safe operation of yarding cables may be cut. Trees may not be cut within a WLPZ of a Class I or Class II watercourse as described in the Timber Harvest Plan (1-16-124 MEN). The Sale Officer may specify that such corridor trees felled within the WLPZ be left on the ground, and if provided for in the Timber Harvesting Plan, that they be felled towards or across the watercourse. Trees leaning into or over the corridor may be felled only if they jeopardize the safety of the operation. Unmarked trees removed from the yarder cable corridors shall be logged and paid for at the same rate as marked timber. Trees pulled over during cable logging operations shall be bucked to log lengths, with the roots and top removed, before yarding.
- 14) All rigging shall be slung on stumps as far as practical. With the advance approval of the Sale Officer, leave trees may be used as spar trees or felled to provide suitable stumps for rigging purposes, provided that the merchantable timber in such trees shall be paid for by the PURCHASER in full at the rate set forth in Section 1. Spar trees shall be felled following their use as spar trees except where not required by the Sale Officer. With advance approval, the PURCHASER may utilize fabric straps on standing trees in lieu of cable straps for tail hold, guy anchor, or spar tree rigging, where such use of standing trees is in compliance with applicable safety regulations.

The PURCHASER may be required to rig tail trees or lift trees to overcome difficult deflection situations.

- 15) Any use of tractors in the area designated for skyline yarding shall have prior written approval of the Sale Officer, and must be provided for in the Timber Harvesting Plan. Throughout the sale area, red and white striped flagging marks the limit beyond which heavy equipment may not travel without approval. These limits are shown on the attached maps (Exhibit A, Attachment 2) and where mapped adjacent to a road or landing, the travel limit for heavy equipment is the road or landing.
- 16) The PURCHASER and PURCHASER's agents may post temporary signs in order to display on-site messages (e.g. haul route mile posts, CB channel, etc.). Signs shall be removed once their function is completed, and in all cases before the term of this Agreement. No messages are to be painted on any tree, rock, stump, or other permanent feature.
- 17) Any flagging used by the PURCHASER in the sale area shall correspond to the table of flagging colors in the Timber Harvesting Plan, or shall otherwise be approved by the Timber Sale Officer.
- 18) At any time that cable lines cross any forest road, including roads within the sale area, the PURCHASER shall place warning signs to notify traffic of the location of the lines, and shall block the road or shall have a person stationed on the road to control traffic when lines are being raised or lowered, or when cable road changes are being made. As directed by the Timber Sale Officer, when such roads might be used by other than the PURCHASER or the Sale Officer, the PURCHASER shall either block the road from both sides or provide a flag-person for traffic control.
- 19) The PURCHASER'S Licensed Timber Operator shall be responsible for maintenance of erosion controls on all skid trails and truck roads used by that Operator until the work completion report for the Timber Harvesting Plan has been approved by the Director of the Department of Forestry and Fire Protection.
- 20) As called for by the Timber Harvesting Plan or by Department of Fish and Game stream alteration permits, the PURCHASER shall provide and apply seed and straw or slash mulch for erosion control purposes. In addition, bare soil associated with equipment disturbance within WLPZs and ELZs that exceed 100 square feet are to be mulched to achieve at least 95% coverage to a minimum depth of four inches.

- 21) The PURCHASER shall provide and use trash cans for papers, cans, oil filters and other debris. Broken chokers, wire rope and other debris shall be removed and all trash shall be disposed of at a public disposal facility.

Within 100 feet of any truck road or log landing, human waste shall be buried immediately at a depth of at least 12 inches. Human waste shall not be deposited within any Watercourse and Lake Protection Zone or any Class III Watercourse Equipment Limitation Zone.

14. HARVEST ONLY DESIGNATED TREES.

The PURCHASER shall cut all and only those trees designated for cutting, this includes the marking exemption-Variable Retention areas where the timber without paint are the trees designated for harvest. No timber shall be removed from the State Forest until scaled or released by the Timber Sale Officer.

Merchantable timber designated for cutting by the Sale Officer for the construction of landings, bridges, or roads, or for the reconstruction, rehabilitation, or improvement thereof, or for development of rock quarries, within the sale area or for access thereto, shall be paid for at the rates set forth in Exhibit B, "Budget Detail and Payment Provisions, Paragraph 2. "Payment Schedule".

15. LIABILITY/DAMAGES PAYMENT RATE.

It is agreed that because of the effect upon the State Forest land as a whole and upon its future productivity and because of the nature of the case, it will be extremely difficult and impractical to fix the actual injury to the STATE by the following type of breaches of this Agreement by the PURCHASER:

- A. The failure to remove all merchantable material designated for cutting as agreed herein; and
- B. The loss of merchantable timber from fire, or from other injury caused by the PURCHASER or which the PURCHASER might have prevented and by the terms of this Agreement the PURCHASER is required to prevent; and
- C. The cutting or severely damaging by logging of leave trees as agreed herein.

And it is further agreed that by reason of such extreme difficulty and impracticability the PURCHASER shall pay to the STATE for such merchantable material the PURCHASER so fails to remove, and for merchantable material so lost or damaged, at double the rate hereinbefore set forth, provided that such payments shall not release the PURCHASER from liability for any damage suffered by the STATE in addition to the value of said trees so not removed or lost or cut or damaged as aforesaid shall be regarded as liquidated damages. In cases of occasional injury as described above and involving small amounts of material only, the Timber Sale Officer will use discretion and judgment in determining whether any breach of contract has occurred within the meaning of this paragraph.

16. PROTECTION OF STATE FOREST AND CASPAR WATERSHED STUDY SITE INFRASTRUCTURE.

All telephone lines, ditches, pipelines, water developments, power lines, and fences; and all structures, and improvements located within or immediately outside the exterior boundaries of the sale area, shall be protected so far as possible in logging operations, and if damaged, shall be repaired immediately by the PURCHASER at PURCHASER's expense; and the Timber Sale Officer may, when it is necessary, require the PURCHASER to move or cause to have moved, any such lines or fence from one location to another.

Roads shall at all times be kept free of logs, slash and debris resulting from the PURCHASER'S operations hereunder. Any road used by the PURCHASER in connection with this sale that is damaged through such use shall promptly be restored by the PURCHASER to its original or better condition at the PURCHASER's expense.

CONTROL Gauged SUB-WATERSHEDS (outside of the Timber Sale Area):

Location: See TSA Map for the YOC, WIL, and RIC sub-watershed designated areas.

Description and Protection Needs: While conducted timber operations within the South Fork Caspar THP (1-16-124 MEN), no heavy equipment, vehicles, tree felling, tail holds or any other ground disturbances are allowed within the boundaries of CONTROL gauged watershed areas, shown on the attached Timber Sale Agreement Maps (Exhibit A, Attachment 2), these watersheds are not included in the THP area.

SAP FLOW PLOTS:

Location: Plots located within the ZIE Sub Watershed in Unit 2, see attached TSA Maps.

Description: The plots are circular areas with a 20-meter diameter, the sap flow tree with all the measuring equipment attached is located in the center of the circle. At each Sap Flow plot, there is a triangular area adjacent to the Sap Flow Tree which has been identified with a boundary of "NO CUT" flagging. Within the boundary are multiple pieces of ground-water reading instruments and small PVC pipe soil wells.

Protection Needs:

While conducting operations within the vicinity of the Sap Flow Tree Research Plots the PURCHASER will avoid damaging the Sap Flow Tree in the center of each plot, trees are identified in the field with PINK "NO CUT" flagging and an Orange ring of paint at DBH to designate retention in the VR Unit . Additionally, each of these trees has a collection of sensitive equipment attached to it and located near the base of it. The equipment attached to the tree and located near the base of the tree must be protected to the fullest extent feasible. If the trees in the plots as marked cannot be felled without damaging other trees in the plot and/or the equipment, the TSO will be notified and they will designate an appropriate swap tree. No cable corridors or skid trails may run through the sap flow tree plots.

GAUGING STATIONS AND FLUMES

Location: The lowest elevation point in each gauged watershed stream

Description: The flume is constructed within the stream channels at these locations and the station is a small covered wooded structure (approximately 10'X10') located immediately adjacent to the stream where the flume is located. These structures are permanent portions of the Caspar Research project and must be protected from logging damage.

Protection Needs: All trees must be felled away from the structures. If the timber as marked has the potential to damage the structures, the TSO must be notified and they will designate an appropriate swap tree. No cable corridors may pass directly over or directly adjacent to the structures.

PORTER GROUND WATER MONITORING DEVICES

Location: Scattered throughout the Class II watercourse channels and associated WLPZ buffers within the POR gauged sub-watershed.

Description: The equipment consists of small PVC pipes sticking out of the ground and associated underground well infrastructure. The equipment is scattered within the Class II channel and within the Class II WLPZ buffer.

Protection Needs: If the trees within the WLPZ cannot be felled without damaging the equipment, the TSO will be notified and they will designate an appropriate swap tree outside of the WLPZ.

There are numerous fence t-posts, buried pieces of rebar with aluminum tags and flagging attached to them, and other miscellaneous pieces of semi-permanent infrastructure scattered throughout the Sale Area. If/when these items are located prior to falling and/or yarding, they shall be avoided to the operational extent feasible.

Prior to the start of falling in any of the areas containing Research Equipment, the TSO will conduct a walk through with the faller responsible for the strip near the equipment. The TSO and/or additional Research Staff will be available at all times to answer questions, conduct site visits for clarification, and assistance in any way needed to provide for faller safety while meeting the research goals.

17. NORTH FORK CASPAR POND CLEAN-OUT PROJECT

The PURCHASER shall remove and end-haul stored sediment within the North Fork Caspar Weir Pond. The pond location is shown on the attached General Timber Sale Location Map (Exhibit A, Attachment 2).

- A. The extent of the sediment excavation shall be from the weir face upstream to the cement temporary stream diversion dam. The depth of the excavation shall be to bedrock or other relatively impervious rock stratum and to a level that is satisfactory to the STATE

**EXHIBIT A
Scope of Work**

Upon initial excavation of sediment, the PURCHASER shall excavate and maintain a sump pit adjacent the cement weir that captures subsurface drainage beneath the concrete weir. Concurrent with excavation, the PURCHASER shall provide a motorized pump with hose, fuel for pump and shall pump stored water daily to remove subsurface drainage off site for preparation of continued excavation. Water shall be pumped into a water tender or other form of containment that will allow for transport of water and dispersed on road surfaces along the access route described below for the purposes of dust abatement associated with the pond clean-out project or other projects as directed by the Timber Sale Officer.

Upon completion of pond excavation, the PURCHASER shall be responsible for the falling of approximately 20 hazard trees and snags (number is subject to change as a result of upcoming winter activity) from the nearby banks of the pond. The trees can be felled into the cleared dry pond. The PURCHASER shall be responsible for the subsequent removal of all logs and debris. The PURCHASER shall be responsible for moving the logs from the pond to the parking area at the intersection of roads 500 and 600. The PURCHASER shall be responsible for the removal and transportation of all other slash and debris created from the Hazard Tree falling. The additional slash/debris will be deposited at whichever designated spoils dump locations has the capacity to accommodate additional materials.

Access to the Pond Clean-Out shall be via JDSF Road 600 to Road 620. The route from the pond clean-out to spoil deposit sites shall be from Road 620, to Road 600, to Road 500 and off Road 523 and spur roads intersecting with Road 520 and/or to the end of JDSF Road 532.

- B. The PURCHASER shall remove and end-haul all sediment to the end of JDSF Road 532 and spur roads intersecting JDSF Road 520, shown on the attached General Timber Sale Location Map (Exhibit A, Attachment 2). The amount of sediment to be excavated is approximately 925 cubic yards of material. It is expected that no more than 1,200 cubic yards of material will need to be removed from the pond.

The PURCHASER shall notify the Timber Sale Officer a minimum of 21 days in advance of the anticipated startup of in-stream pond cleanout work to allow time for the STATE to conduct stream flow bypass, dewatering/drainage pond, fish capture and other preparations for in-stream work. All required removal and end-hauling of spoils shall commence no sooner than July 15, 2018 and to be completed no later than September 30, 2018, unless adjustments to these time constraints are approved by the Timber Sale Officer. Upon commencement of operations of the pond clean-out, the PURCHASER shall agree that work will continue consecutive days until all excavation is complete, unless otherwise approved by the Timber Sale Officer.

The PURCHASER shall protect existing weir, fish ladder, monuments and water bypass structures associated with the clean-out project from any damage that might be caused by PURCHASER's equipment. Any damage created by the PURCHASER in connection with this project shall promptly be restored by the PURCHASER to its original condition at the PURCHASER's expense.

The PURCHASER shall comply with the approved Department of Fish and Game Stream Alteration Permit (Notification No. R1-07-0619) obtained by the STATE. A copy of the approved permit shall be provided by the STATE prior to commencement of permitted activities.

18. FOREST ROADS.

Logging roads, skid trails, bridges, watercourse crossings, and landings shall be constructed in a manner consistent with the goals of good forest management. Operations in or near sensitive or critical areas will be reviewed and approved by the Timber Sale Officer. The Sale Officer will use whatever means are necessary to insure that operations conform to the approved specifications.

- A. Roads and landings to be constructed or reconstructed by the PURCHASER shall be built and maintained in accordance with applicable Forest Practice rules. Except where more specific instructions are given elsewhere in this Agreement or in the Timber Harvesting Plan (ref. THP 1-16-124 MEN, Section II, Item 25), roads and landings shall be constructed to the following specifications:

- 1) Cut and Fill Slopes: Normal fill slopes will be 1½:1 minimum; normal cut slopes will be ½:1, or as determined on a site specific basis by the Timber Sale Officer. In solid rock, and in construction of temporary roads, cut slopes may be steeper. In localized unstable soils, slopes shall be flattened as determined by the Sale Officer, but not to exceed 2:1.
 - 2) Compaction: Structural fill shall be compacted by dozer track in lifts not to exceed eight (8) inches in depth, or by compactor in lifts not to exceed twelve (12) inches in depth. Compaction shall be equal to or greater than the natural state of the soil or a minimum of seventy (70) percent relative degree of compaction. Woody material shall not be deposited in fills.
 - 3) Width: The standard roadbed width for straight road sections shall be 14 feet, including a one-foot shoulder on each side of a 12-foot traveled surface, with additional width on curves as needed to allow passage of log trucks. Roadbed width is measured from the base of the cut slope to the top of the fill slope. The maximum width allowed on minimum-radius switchbacks is 20 feet. Excavation shall be limited to that necessary to construct the minimum road width. New roads constructed wider than these standards shall be narrowed by pulling back excess fill or sidecast and placing it at locations designated by the Timber Sale Officer. Normal spacing for turnouts is 1,000 feet.
 - 4) Radius of Curvature: 50 feet minimum.
 - 5) Construction Method: Excess material shall not be sidecast onto slopes greater than 65%. On side slopes exceeding 50%, new roads shall be full bench construction, keeping sidecast to less than three feet in thickness by drifting excess excavated material along the road surface or utilizing it as fill elsewhere. Length of through-cut sections shall be minimized, and shall in no case be longer than the standard waterbar spacing unless provision is made for disposal of road surface water.
 - 6) Surface Drainage: Unless otherwise specified, roads shall be constructed and maintained with a 2-5% outslope and without a berm or inside ditch. The road surface shall be insloped or bermed only where needed to direct water to a drainage facility or away from a sensitive area. Where grade is 7% or less, permanent and seasonal roads shall have rolling dips incorporated into their running surface during their construction at locations proposed by the PURCHASER and approved by the Timber Sale Officer. Spacing between rolling dips shall be consistent with the waterbreak spacing requirements of the Forest Practice Rules and the Timber Harvesting Plan. Rolling dips shall be constructed in accordance with the attached diagram, Exhibit A, Attachment 1. Where grade of permanent or seasonal roads is more than 7%, waterbreaks or other suitable forms of water dispersal, shall be installed by bulldozer at locations specified or approved by the Sale Officer upon completion of use of the road for log hauling, but prior to final road grading.
 - 7) Landings: The locations and extent of all new landings shall be approved in advance by the Sale Officer.
- B. Where the Timber Sale Officer has set construction stakes or marked trees or placed flagging to establish road centerlines and grades or cut and fill markers for road work, culverts, erosion control or other necessary structures, these markers shall constitute the field control by and in accordance with which the PURCHASER shall govern and execute the road or other work as portrayed on such road plans, profiles, or specifications furnished the PURCHASER.
- C. Prior to excavation for new road or landing construction, trees and other live woody vegetation greater than two inches dbh within the designated right-of-way shall be felled. Any tree boles or portions thereof six inches in diameter and eight feet in length, or larger, whether merchantable or not, shall be limbed, cut to lengths not exceeding the maximum log length allowed in this Agreement, and removed to landings or to other disposal sites approved by the Timber Sale Officer. Remaining limbs, tops, slash and other woody debris shall not be mixed with or buried by excavated material, but may be windrowed below the toe of the fill or sidecast slope.

All new road construction shall be done by using a hydraulic excavator, or by using a bulldozer equipped with a square or semi-U blade. Provisions elsewhere in this Agreement may further specify the equipment to be used. No material or debris removed from the right-of-way shall be deposited in watercourses or drainage channels. After the road bed has been substantially completed, it shall be given appropriate surface drainage as specified in Paragraph

17.a(6) above, or as otherwise directed by the Sale Officer. Prior to its use as a log truck access road it shall be shaped and dressed with a grader in conformance with all finish lines, grades and typical cross sections or specifications furnished by the STATE. Side slopes shall be finished in a neat manner with no undercuts or overhanging edges.

- D. The PURCHASER shall provide any additional materials needed to perform the work required below. The PURCHASER shall install culverts and downspouts and do other associated work in locations designated by, and to the specifications of, the Timber Sale Officer and as shown on the attached road work list and map (Exhibits A, Attachments 1 and 2) and culvert installation specifications (Exhibit A, Attachment 1). Any additional culvert or drainage facility material needed for unanticipated road drainage structure installations or to lengthen or enlarge designated installations will be provided by the STATE and shall be installed by the PURCHASER. Any culvert, culvert couplers, or downspout listed in Exhibit A, Attachment 1 which is required to be provided by the PURCHASER and which is surplus following completion of all specified work shall be retained by the STATE and shall be delivered by the PURCHASER to the STATE'S yard adjacent to the Parlin Fork Conservation Camp within 30 days of completion of log removal from the sale area.

Where trenches are excavated in existing permanent or seasonal roads for culvert or other work, the disturbed portion of the road surface shall be restored by surfacing with a minimum six-inch compacted layer of 1"-3" coarse crushed rock provided by the PURCHASER. The amount of rock needed for each installation is noted on the Work List (Exhibit A, Attachment 1). Backfill and rock shall be mounded over the disturbed portion of the road to allow for settling of fill, and a berm shall be constructed as necessary to protect the fill slope from erosion caused by road runoff.

All inlets and outlets of existing and installed culverts on any roads used or constructed by the PURCHASER shall be kept open to their full capacity at all times. The PURCHASER shall replace or repair any culverts, downspouts, or culvert location stakes lost, damaged, or destroyed by the PURCHASER's operations. All old culvert and debris resulting from culvert replacement shall be crushed and disposed of by the PURCHASER at a public disposal site.

- E. The PURCHASER shall protect existing watercourse crossing structures on State Forest land from any damage that might be caused by PURCHASER's equipment and/or loads in the performance of this Agreement. Any bridge or culvert used by the PURCHASER on State Forest land in connection with this sale that is damaged or injured through such use shall promptly be restored by the PURCHASER to its original condition at the PURCHASER's expense. STATE bridges and culverts are designed for highway loads unless load signs are posted.
- F. All Forest roads and landings which are used by the PURCHASER for decking, loading or hauling logs or for other operations conducted under this Agreement, including roads used by timber fallers or rigging crew, and roads used for hauling rock or water for use on the sale area, shall be maintained by the PURCHASER in serviceable condition during and immediately following periods of use at the PURCHASER's expense.
- G. Road or landing use shall be discontinued if firm, stable road and landing surfaces acceptable to the Timber Sale Officer cannot be maintained, or if trucks cannot operate under their own power, and the PURCHASER shall take measures necessary to improve the condition of the road or landing. These measures may include stabilizing the road or landing surface with rock and geotextile fabric, or postponing further use of the road or landing until a period of drying allows the surface to become firm and stable. Saturated loose material and fines that accumulate on the road or landing surface shall not be bladed off to permit hauling without specific approval from the Sale Officer in each case. Such material must be bladed back onto the road or landing after it has dried.

Truck roads shall be treated for dust control in one or a combination of the following ways:

- 1) Truck roads will be watered daily and graded as necessary to maintain a good road surface as designated by the Timber Sale Officer. Watering shall be done in the evening or early morning so that water penetrates the road surface before hauling begins, and shall be repeated during the day if necessary to maintain a stable road surface.
- 2) Truck roads may be treated using lignin or other surfacing chemicals approved by the Timber Sale Officer. Treatment must be in accordance with manufacturer's specifications and reapplied as necessary to maintain a

dust-free environment. Any ruts or chuck holes that develop on said roads after surfacing shall be immediately removed by grading or patching. If the PURCHASER is unable to maintain a good road surface by this method, the Sale Officer by written notice may require the PURCHASER to maintain the roads in accordance with paragraph 17.g.(1) of this Agreement.

- H. Maintenance work shall also be done within 15 days of the end of hauling operations on each road [each season], and immediately on completion of hauling on any road after October 15. Maintenance shall include outslowing or installation or improvement of waterbars, rolling dips, or other road surface drainage facilities as specified by the Sale Officer; final watering and grading to remove ruts and other irregularities that would prevent adequate drainage of the road surface; removal or breaching of berms; and a final clearing of drainage ditches and culvert inlets and outlets as necessary to insure proper functioning of the road drainage system.
- I. Where more than one timber sale must use the same road at the same time, the PURCHASER of the sale with the largest estimated timber volume to be removed over that road during the current operating season, as determined by the STATE prior to the start of timber operations, shall have the primary responsibility for routine maintenance (watering and grading) of those roads being used simultaneously, and shall also be responsible for any additional unanticipated work needed to maintain a firm, stable road surface or to provide proper road drainage. The last user of each road each year shall be responsible for the final road maintenance required at the end of the operating season, as described in the paragraph above. Joint road users are encouraged to share routine road maintenance burdens equitably on a basis proportional to actual use. When only one party is using a road then that party is solely responsible for all road maintenance requirements.
- J. The PURCHASER shall construct, reconstruct and maintain approximately 2.2 miles of seasonal truck road, shown on the Timber Sale Agreement Map (Exhibit A, Attachment 2) as roads Rs-12, Rs-13, Rs-21, Rs-22, Rs-23. All road work conducted near control gauged watersheds shall comply with Item 16 above, as shown on the Timber Sale Agreement Map (Exhibit A, Attachment 2). Road work shall conform to provisions in the Timber Harvesting Plan and to road specifications set forth in paragraphs 18.a through 18.f of this Agreement.
- K. The PURCHASER shall comply with an encroachment permit from the Mendocino County Department of Public Works; shall provide all needed material, temporary and permanent signs, equipment, labor, traffic control and supervision; and shall construct an encroachment off County Road 409 at the intersections of existing JDSF Roads 695, 694, and 692 in Unit 1 and at the intersections of County Road 408 and proposed JDSF Roads Rs-12 and Rs-13 in Unit 2 as well as Map Point 94 Located in Unit 2 along County Road 408. The STATE has obtained approval for establishment of an encroachment at these locations. See (Exhibit A, Attachment 2) Encroachment Permit for full complete details. The PURCHASER is responsible for utilizing the listed Road Construction and Maintenance Best Management Practices listed within the permit.
- L. The PURCHASER shall provide any culvert or other material needed during the course of the operation for temporary truck road or skid trail watercourse crossings. Such crossings shall be removed and the culvert or other material disposed of by the PURCHASER at completion of operations.
- M. The PURCHASER shall comply with a Department of Fish and Game Stream Alteration Permit obtained by the STATE. A copy of the approved permit shall be provided by the STATE prior to commencement of permitted activities.
- N. The PURCHASER shall provide, haul, place and compact rock for road stabilization at locations specified in the Additional Specifications, Exhibit A, Attachment 1.
- O. Timber hauled from the sale area shall access the public highway system via County Road 408 and County Road 409 to Highway 20 and/or Highway 1. Timing of operation restrictions are described in Item 3B above and in THP 1-16-124 MEN for County Road 409. Log hauling is not permitted on JDSF Road 600.

- P. The PURCHASER shall abandon the portion of Road 605 located within Unit 2 shown on the attached map. Culverts and other non-native material removed from watercourse crossings shall be disposed of at an off-forest public disposal site. Waterbars shall be constructed by using the dozer blade to push into the road and leave the excavated material on the road surface as a berm, rather than carving waterbars with the corner of the blade and wasting material over the side of the road.

Abandoned roads shall be effectively blocked to vehicles by installing tank traps or placement of stumps or partially buried unmerchantable logs. Road abandonment activity shall be completed by October 15, 2018.

- Q. The STATE may, from time to time, schedule organized public events which require weekend or holiday use of roads used by the PURCHASER within or appurtenant to the sale area. With a minimum of two weeks notice from the STATE, the PURCHASER shall make specified roads available for such use by removing down timber and slash from the road surface, positioning equipment off of the road, and otherwise making the road passable for the designated use.
- R. The PURCHASER agrees to keep records and furnish the STATE daily water use data with respect to water drafting activities. Required data shall include landowner, operator name, year and month of water drafting and drafting site location, filing time, pump rate and total gallons used. The information shall be reported on a form provided by the STATE (Exhibit A, Attachment 4). Daily water use information will be furnished to the STATE no later than the first Tuesday following the month water use information was collected.

19. HEALTH AND SAFETY LAW, TEMPORARY STRUCTURES.

No permanent structures shall be allowed on State Forest land. Temporary structures shall be kept to a minimum necessary for the logging operation and shall be maintained at PURCHASER'S expense. They shall be located, built to standards, and operated as may be required by the Timber Sale Officer to prevent the pollution of the water in any watercourse. Outhouses and toilets shall be constructed and maintained so as to prevent, so far as possible, the breeding of flies or the development of unsanitary conditions. The PURCHASER shall abide by all Health and Safety Laws of the State. All structures shall be removed when cutting is completed or the sale terminated, and the grounds cleaned up to the satisfaction of the Sale Officer.

20. FOREST FIRE SUPPRESSION.

During the time that this Agreement remains in force, the PURCHASER shall independently of STATE effort do all that can be done to prevent and suppress forest fires on the sale area and shall require all employees, agents, contractors, subcontractors, and employees of contractors and subcontractors to do likewise.

Unless prevented by uncontrollable circumstances, the PURCHASER shall place all employees, agents, contractors, subcontractors, and employees of contractors and subcontractors, and their equipment at the disposal of any authorized representative of the Director of Forestry and Fire Protection for the purpose of fighting forest fires on or adjacent to the State Forest, with the understanding that where fire fighting services are not rendered on the sale area of the PURCHASER, payment to the PURCHASER, and to employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER by the STATE for such services shall be made at standard rates established by the Director of Forestry and Fire Protection where such services are specifically ordered or requested by the Department of Forestry and Fire Protection Officer in charge of the fire; provided further, however, that no payment shall be made by the STATE to the PURCHASER if said fire occurred or spread as the result of violation of law, Forest Practice Rules, or actionable negligence attributable to the PURCHASER, or to employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER.

In cases where fires occur upon the sale area or spread across the sale area from an adjacent area, the PURCHASER will bear all expenses incurred in action taken upon the fire prior to the arrival of the Department Officer in charge of the fire. Upon arrival of the Department Officer in charge of the fire the PURCHASER, and employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, may be reimbursed by the STATE for fire fighting services rendered by them in response to specific orders and requests made by the Department Officer in charge of the fire at the rates provided for in the second paragraph of this section; provided further, however, that when the fire has been surrounded by control lines, the PURCHASER will assume all costs of patrol until the fire is declared to

be out by the State Forest Officer in charge of the fire protection in the area and provided further, that in the event said fire has occurred or spread as a result of violation of law, Forest Practice Rules, or actionable negligence of the PURCHASER, or employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, then the PURCHASER shall not be reimbursed in any amount by the STATE for services rendered by PURCHASER, or by employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, in control of the fire.

When the STATE becomes legally obligated by contract expressed, implied or otherwise, to make payment for any fire fighting services under the second and third paragraphs of this section and the said fire occurred or spread as the result of violation of law, Forest Practice Rules, or negligence attributable to the PURCHASER, or to employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, said PURCHASER shall reimburse the STATE for that payment.

The provisions of this section shall not be construed as relieving the PURCHASER of fire suppression costs for which the PURCHASER is otherwise liable under State law.

21. WATER WAGON.

In addition to the required complement of fire tools, during the period specified by law, the PURCHASER shall have readily available to the sale area for fire suppression purposes a "water wagon" or similar self-propelled vehicle of at least 1,000 gallons capacity which shall be maintained in good operating condition. The "water wagon" shall be located within a 60 minute drive to the sale area. This unit shall be kept filled to capacity except when in actual physical use on the logging operation and equipped with at least 150 feet of serviceable 1½ inch fire hose with National Standard thread fittings and a serviceable nozzle for said hose; and further, said unit shall be equipped to draft water from a stream or pond as well as to pump water from the tank mounted on the vehicle.

22. TIMBER, STATE PROPERTY UNTIL PAID IN FULL.

All timber included in this Agreement shall remain the property of the STATE until paid for in full by the PURCHASER in the manner hereinbefore set forth, provided that the risk of loss thereof, by fire or otherwise, after operations have begun with reference to the particular logging area, shall be on the PURCHASER.

Additional Specifications

1. MATERIALS TO COMPLETE THE WORK LISTED:

<u>ITEM</u>	<u>QUANTITY</u>
Crushed rock, 1½"	300 yd³
Crushed rock, 3"-minus	100 yd³
Riprap 1/10 ton	0 yd³
Riprap 1/4 ton	0 yd³
Riprap 1/2 ton	0 yd³
Straw	60 bales
Lignin or equivalent	per Item 17.p

If Rs- 21, Rs-22, Rd 695, and Rd 694 are all needed for Winter hauling then another 1600 cubic yards of 3"minus will be needed.

3. Additional materials may be needed to comply with other sections of the Timber Sale Agreement.

Acquisition of rock by the PURCHASER for this or any other section of this Agreement shall be consistent with Section 10295.5(a) of the Public Contract Code. If requested by the STATE, the PURCHASER shall provide documentation of such compliance.

<u>Map Point</u>	<u>Road Number</u>	<u>Work to be Done</u>
68	NA	<p><u>Description</u> Slide S24 lies east of the proposed landing location. The landing construction and drainage shall avoid draining onto this point.</p> <p><u>Treatment</u> Geologic point S24. Prior to October 15 of any year of operations, the landing drainage shall be arranged with three water bars. The first shall cover the east side of the landing and funnel flow to the north. The second will be in the middle of the landing and vent on the spur ridge. The third will be at the base of the road and vent down the swale. The outlets of each water bar shall be slash packed. This will be independent of any slash packing of the landing.</p>
69	NA	<p><u>Description</u> This location is an unstable area identified by the CEG.</p> <p><u>Treatment</u> Geologic Map slide S17 : Operations shall avoid the shallow-seated debris slide area including clearing for cable corridors.</p>
235	NA	<p><u>Description</u> Legacy tractor crossing on Class II. This appears to be a Humboldt log fill, with the earthen running surface slowly subsiding. A tractor road connects it to a proposed landing.</p> <p><u>Treatment</u> 1600 site. Use bucket equipped equipment to access the site using the designated tractor road. Remove crossing. Post-harvest this shall meet temporary crossing standards.</p>

The following Map Points are located within Harvest Unit 2 :

80	NA	<p><u>Description</u> At this location, a legacy tractor road diverts the tributary Class II for roughly 450feet, creating an actively eroding, vertically sided trench roughly 2 feet wide and 2 feet deep with multiple nick points. The berm of the tractor road is breach-able and would allow the Class II to return to original channel.</p> <p><u>Treatment</u> Requires Hand Tools. Use hand tools to breach berm, and block diversion. Dig trench as marked in field to breach berm and restore flow to original channel. Trench shall be at least 2 feet wide and 1 foot deep, unless rock layer prevents. Roots are to be cut with Pulaski or similar tool. At location marked in field, compact spoils using boots and shovels to block downstream diversion. Cut branches and small vegetation and tamp into bare soil for stabilization.</p>
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- | | | |
|----|----|--|
| 81 | NA | <p><u>Description</u>
Proposed Temporary Crossing. The proposed road enters the lower portion of the Wet Area WLPZ in order to cross the Class III. The grade flags are hung to allow a flat approach, a dip the crossing, and then an exit. The road then turns at 15% to hit the next proposed Temporary crossing at MP82. The Class III between MP81 and 83 runs down old ruts.</p> <p><u>Treatment</u>
Install temporary crossing as flagged. Rock road within ELZ and WLPZ. Slashpack exposed soil within ELZ and WLPZ. Install waterbars at approaches at edge of ELZ to prevent concentrating flow towards crossing. Spoils from road construction from MP81 to MP82, inclusive, are not to be side cast, but drifted as equipment allows past the dry Class II to outside the flagged ELZ and WLPZ.</p> |
| 82 | NA | <p><u>Description</u>
Proposed temporary crossing. The proposed road descends at 15% curve, dips 5% at the crossing, and then departs at 0% before descending to the landing.</p> <p><u>Treatment</u>
Rock road between map points 81 and 82. Install temporary crossing as flagged at MP 82.</p> |
| 83 | NA | <p><u>Description</u>
Class III follows ruts to skid trail, and then with some minor incision to the legacy truck road. At legacy crossing some road edge has been lost but stable in normal flows. Approximately 3 cubic yards of fill is perched along the crossing at the locale and can be accessed via tractor road (tractor in cable area) from proposed road.</p> <p><u>Treatment</u>
Bucket Advised. Use preflagged tractor road to access. Prior to completion, remove existing crossing to temporary crossing standards.</p> |
| 86 | NA | <p><u>Description</u>
At MP86, the tractor road system departs the Class III. The Class III used to divert down the tractor road and then split, such that a portion of the flow now is in the original channel and the other portion flows along the skid trail. It appears that sediment deposition now diverts it down the hillside through sidecast materials resulting in the deposit of sediment adjacent to the Class I and eroding the Class I alluvial terrace. The abandoned Class III channel may have similar issues, but would not include the tractor road and hillside erosion if restored.</p> <p><u>Treatment</u>
As marked in field, redirect Class III to original channel. Use hand tools to dig trench, with removed material used to create berm on downgrade side. Trench shall be dug at least 2' deep and 2' wide at bottom, or to restrictive material, whichever met first. Upstream edge of trench shall be sloped at least 1 foot further back.</p> |
| 88 | NA | <p><u>Description</u>
Proposed logging road swale crossing. The proposed road crosses above the ELZ around the top of a Class III watercourse. The tractor road is a throughcut and as such funnels water down the hill, and becomes the Class III at the increase in slope. It is possible that waterbarring this tractor road will eliminate this Class III.</p> <p><u>Treatment</u>
Treat swale as temporary crossing. For the legacy tractor road in the throughcut - slashpack & waterbar to extreme erosion hazard rating standards for 100 feet above the logging road. Slashpack through temporary crossing down to ELZ. Slashpack exposed soil within ELZ.</p> |

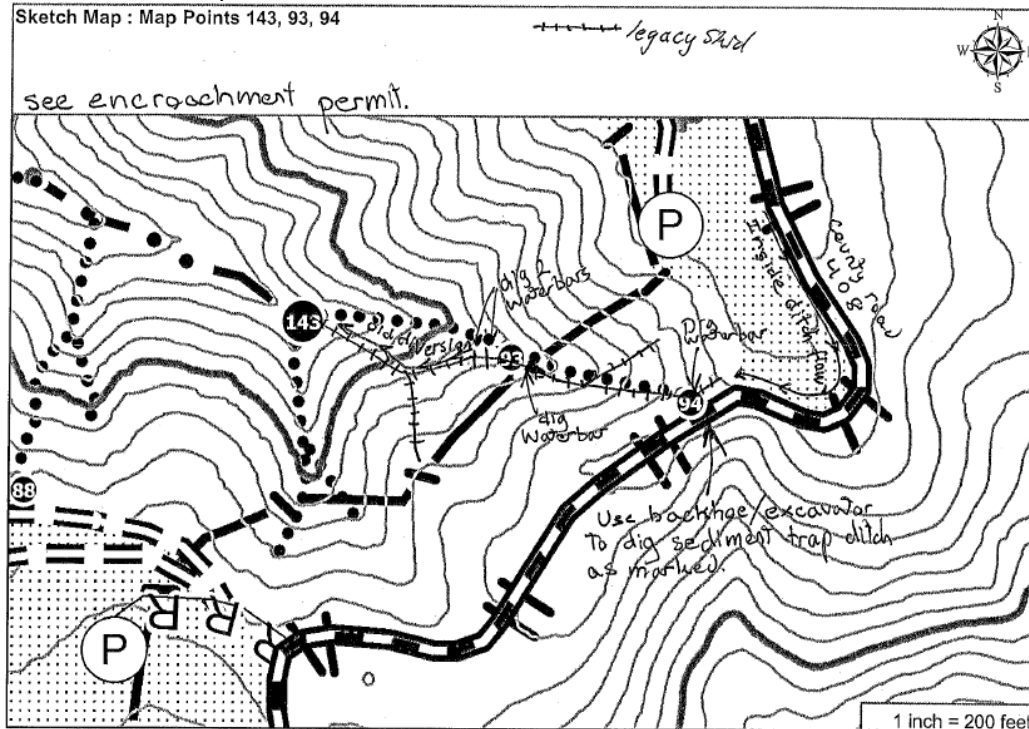
93 NA

Description

Tractor roads were placed in a swale, and the flow, in conjunction with drainage from Road 408, amounts to a Class III. At MP 93, the tractor road departs the swale, and the Class III diverts down it a short distance. In the past, it diverted much further, and there is a further roughly 300ft diversion that appears inactive in normal flows. Hand tool work is proposed from MP 93 up to MP 94, and equipment work adjacent to Road 408, to correct this situation.

Treatment

See Sketch Map below & MP 94.



94 408

Description

This is a multipart map point drainage problem along a Class III. Currently, road 408 drains an inside ditch into the Class III, which then follows a tractor road downhill, diverting in places before returning to the channel. Work is called for in multiple locations, A - D. Locations shall be shown in the field prior to operations with flagging and paint. The additional flow from 408 likely extends the Class III beyond it's natural end, and the remediation at C) & D) will cut off the high flow diversion.

Treatment

See Sketch Map in Map Point 93 treatment. Bucket advised for (A), Hand tools needed for (B)-(D). A) At 408, use equipment to build trench in marked location. Vent trench onto hillside at base of redwood as an energy dissipater. This shall intercept turbid water from Road 408, and prevent sediment delivery to the Class III. B) Use hand tools to dig waterbar across tractor road above the end of the Class III. C) Use hand tools to dig a double sized (1ft down, 1ft up) waterbar to prevent Class III from diverting down skid road, and ensure it stays in channel. D) Use hand tools to install two waterbars on steeper section of skid trail. These "backup" the waterbar at C) to cut off this diversion route.

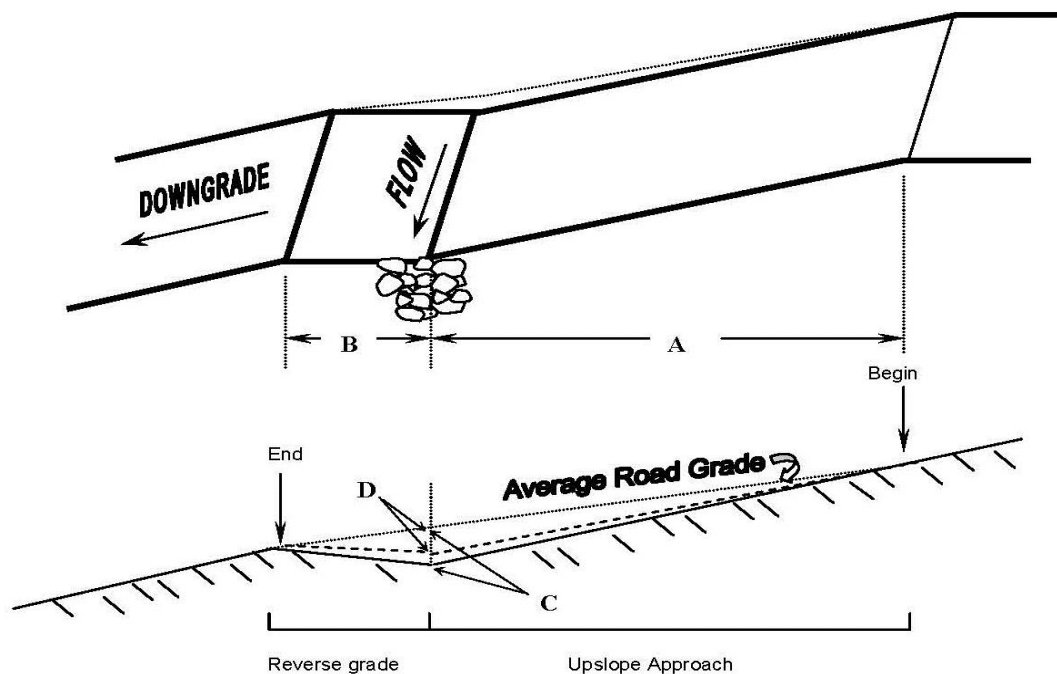
95	NA	<p><u>Description</u></p> <p>A Class III partially diverts at MP 96, flows down the road, is joined by a bank seep, and then rejoins the channel at MP 95. The berm blocking the downgrade at MP 95 was located wrong, and splits the flow coming from the natural channel. A series of hand waterbars are proposed to correct this situation.</p> <p><u>Treatment</u></p> <p>Hand tools required. Dig trench as marked through downgrade berm to connect original channel with dipped crossing. Trench shall be at least 2 feet wide. Compact spoils in downgrade berm. More hand tool work upgrade, see MP 96.</p>
96	NA	<p><u>Description</u></p> <p>At a tractor crossing, the Class III diverts down the skid trail, rutting the surface. At the next tractor crossing, the stream rejoins, but the berm placement diverts part of the Class III down another tractor road. Work is called for in multiple locations, A - C. Locations shall be shown in the field prior to operations with flagging and paint. The work shall correct the diversions down tractor roads.</p> <p><u>Treatment</u></p> <p>Requires hand tools. At the marked locations: A) A portion of the berm shall be dug at least 1 foot down to direct flow towards the flagged creek. B) Below the road seep, dig two waterbars as marked. C) To ensure Class III cannot divert, dig an double sized (1 foot down, 1 foot wide channel, 1 foot high berm) waterbar across the old crossing.</p>
143	NA	<p><u>Description</u></p> <p>Two Class IIIs meet at this location. The 1973 tractor road from Mp141 splits at this location, one route heading South along the Class III, and the other heading east. The Eastern tractor road eventually splits, with one branch turning north to MP93. There is an inactive diversion on this tractor road, well incised with eroded cascades. It is believed that the 3/29/74 storm likely diverted at MP93, created the diversion, and then finally cut down to go back to the original channel. This diversion may flow in storms, but will be cut off by proposed work at MP93.</p> <p><u>Treatment</u></p> <p>See Sketch Map in Map Point 93 Treatment.</p>
NA	Rs-21	<p><u>Description</u></p> <p>Less than 1000 feet of proposed seasonal road located within the POR gauged sub-watershed. If this road section will be utilized after October 15, 2018. The stretch of road MUST be rocked.</p> <p><u>Treatment</u></p> <p>Rock portion of road located immediately adjacent to and within the POR gauged sub watershed if access of Rs-21 is required after the completion of 2018 operations.</p>
NA	Rd 695	<p><u>Description</u></p> <p>Less than 500 feet of existing seasonal road located within the POR gauged sub-watershed. If this road section will be utilized after October 15, 2018. The stretch of road MUST be rocked.</p> <p><u>Treatment</u></p> <p>Rock Road 695 if access is required after the completion of 2018 operations</p>

NA	Rs-22	<u>Description</u> Less than 1000 feet of proposed seasonal road located within the POR gauged sub-watershed. If this road section will be utilized after October 15, 2018. The stretch of road MUST be rocked. <u>Treatment</u> Rock portion of road located immediately adjacent to and within the POR gauged sub watershed if access of Rs-22 is required after the completion of 2018 operations.
NA	Rd 694	<u>Description</u> Approximately 500 feet of existing seasonal road located within the POR gauged sub-watershed. If this road section will be utilized after October 15, 2018. The stretch of road MUST be rocked. <u>Treatment</u> Rock Road 694 if access is required after the completion of 2018 operations.

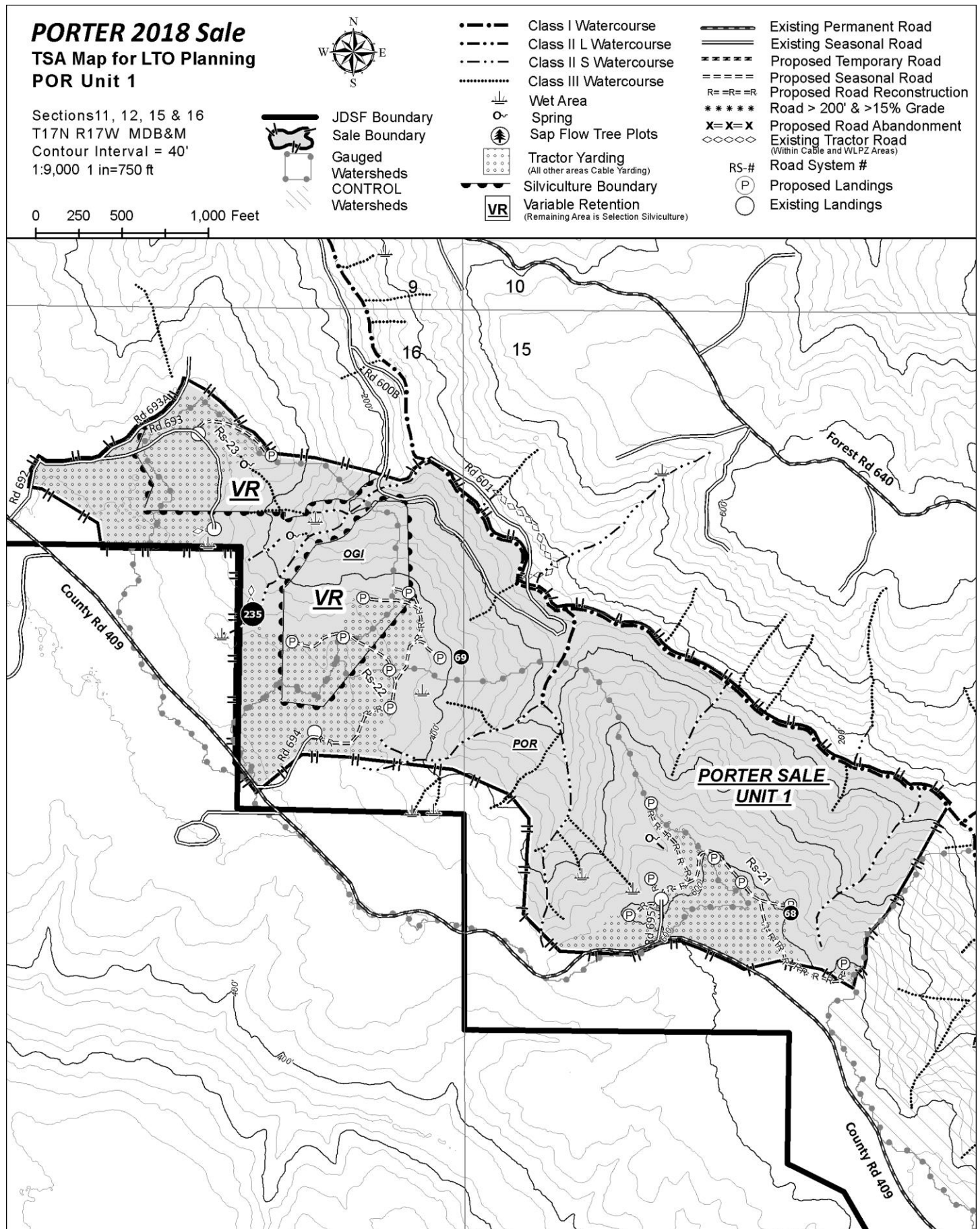
A rolling dip is a smooth shallow ditch or depression that is at least 6" in depth and should be constructed at an angle of 45 to 60 degrees from the centerline of the road (can be nearly perpendicular). The cross grade should be at least 1 percent greater than the grade of the road. Rock riprap or down-drain flumes may be needed to prevent erosion on outsloped roads (see diagrams below).

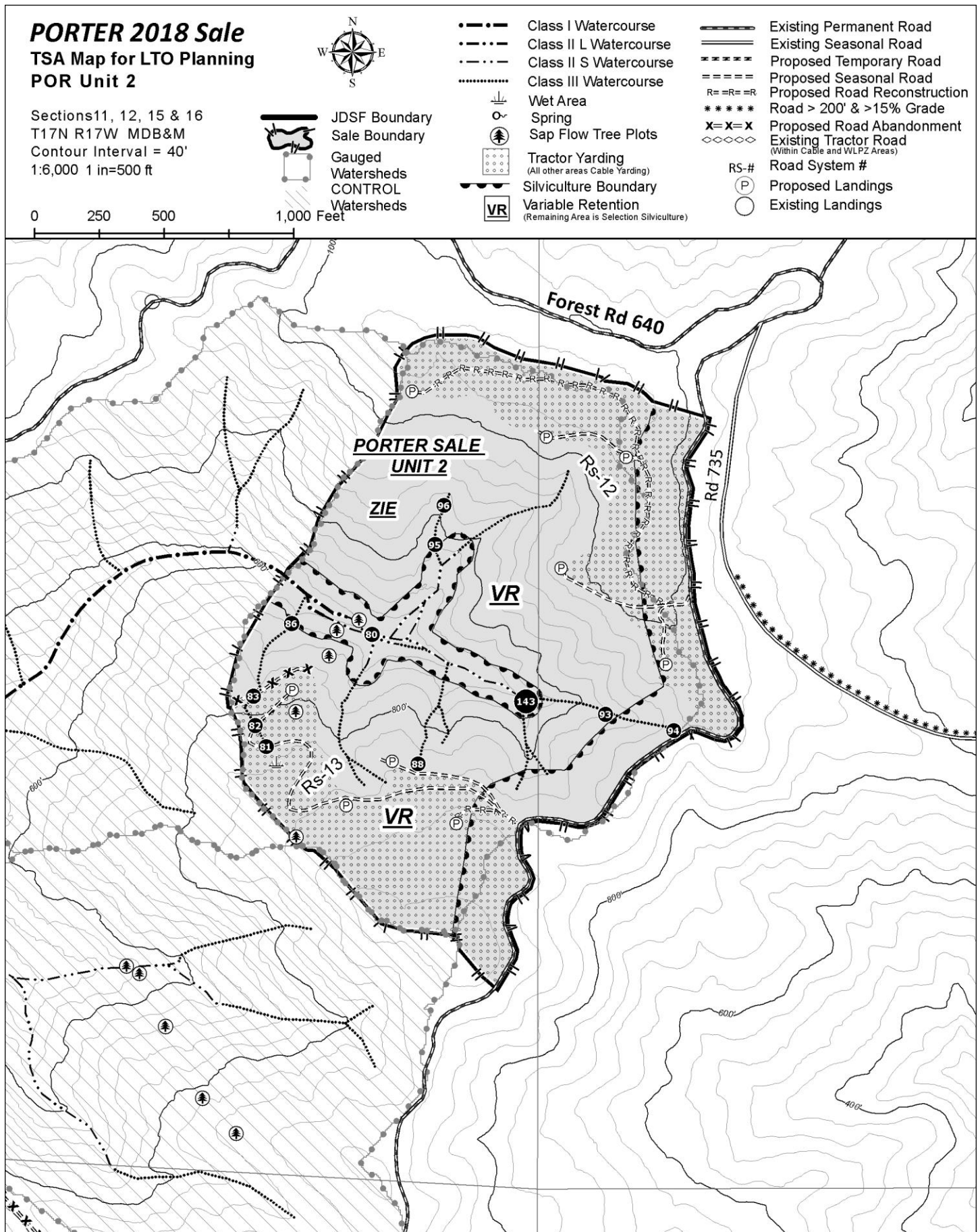
Dips should be constructed deep enough into the road subgrade so that traffic and subsequent road grading will not obliterate them. Their length and depth should provide the needed drainage, but not be a driving hazard.

ROLLING DIP DIMENSIONS				
Road Grade (%)	Upslope approach (distance from up-road start of rolling dip to trough in feet)	Reverse Grade (distance from trough to crest in feet)	Depth below average road grade at discharge end of trough (ft)	Depth below average road grade at upslope end of trough (ft)
	A	B	C	D
< 6	55	15-20	0.9	0.3
8	65	15-20	1.0	0.2
10	75	15-20	1.1	0.1
12	85	20-25	1.2	0.1
>12	100	20-25	1.3	0.1



Text and diagrams from W. Weaver and D. Hagans, *Forest and Ranch Roads*, MCRCD, June 1994, pp. 48, 58.







COUNTY OF MENDOCINO

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT

Permit No. **TU_2017-0030**

Permit Fee: \$400

Surety: \$0

In compliance with your request received 2/27/2017 and subject to the terms, conditions, and restrictions stated below or contained in the General Provisions, Exhibit "A", Exhibit "B", Special Provisions, and approved Best Management Practices attached to and made a part of this permit;

PERMISSION IS HEREBY GRANTED TO THE FOLLOWING PROPERTY OWNER AND PERMITTEE:

JACKSON DEMONSTRATION STATE FOREST
802 NORTH MAIN STREET
FORT BRAGG, CA 95437

7079645674

THE CONTRACTOR OF RECORD TO PERFORM THE FOLLOWING WORK IS:

MUST BE VERIFIED BY MENDOCINO COUNTY DEPARTMENT OF TRANSPORTATION IN ORDER FOR THIS PERMIT TO BE VALID.

TO CONSTRUCT THE FOLLOWING IMPROVEMENT OR OTHERWISE ENCROACH UPON A COUNTY PUBLIC ROAD RIGHT OF WAY:

This permit is to serve County Roads (CR 408) and (CR 409). PERMITTEE is authorized to construct and maintain Commercial Road Approaches, water bars, and perform vegetation control according to the stipulations attached to and made a part of the permit, or as modified by FIELD REVIEW or changing conditions. PERMITTEE is hereby authorized and responsible to maintain the road approaches, however any future improvements will require a new permit. By beginning work both the PERMITTEE and CONTRACTOR accept this permit as a binding contract with Mendocino County and agree to complete the work according to the specifications and any modifications necessitated by changing conditions.

IMPORTANT PERMIT REQUIREMENTS

- **PERMITTEE is required to notify the County at least 48 hours prior to beginning any work under this permit.**
- **A copy of this permit is required to be on site at all times during construction for inspection by law enforcement, County employees, or other authorities.**

- **A copy of this permit is required to be on site at all times during construction for inspection by law enforcement, County employees, or other authorities.**
- **PERMITTEE is required to notify the County to schedule a final inspection when the work has been completed.**
- **Call 707-234-2850 to give notifications and schedule final inspection.**

FIELD REVIEW:

- **Site #1:** Re-establish ditch at end of logging operations (November 15th). If rain comes before November 15th then the ditches must be established prior to the rain event. The trees north of the driveway approach must be cleared for proper site distance established by Mendocino County Department of Transportation Standard A53.
- **Site #2:** The catch basin is approximately 2 feet wide by 30 feet long by 2 feet deep. The catch basin is not to cut into the County Road. No spoils are to be placed with the County right of way. Road drainage shall be unaltered. If the catch basin begins to undermine the County Road, Cal Fire will replace the embankment at their expense to the satisfaction of Mendocino County Department of Transportation.
- **Site #3:** Re-establish ditch at end of logging operations (November 15th). If rain comes before November 15th then the ditches must be established prior to the rain event.
- **Site #4:** Re-establish ditch at end of logging operations (November 15th). If rain comes before November 15th then the ditches must be established prior to the rain event. North of the encroachment, reduce the height of the old growth stump to 4 feet or less, and remove 2 Douglas-fir blocking line of sight.
- **Site #5:** Re-establish ditch at end of logging operations (November 15th). If rain comes before November 15th then the ditches must be established prior to the rain event.
- **Site #6:** Re-establish ditch at end of logging operations (November 15th). If rain comes before November 15th then the ditches must be established prior to the rain event. Permittee is permitted to grade down the west side berm to road level.
- **Site #7:** Permittee is permitted to reopen existing driveway approach to the rock quarry. Permittee is permitted to remove boulders and replace once logging operations are completed.
- **Site #8:** Re-establish ditch at end of logging operations (November 15th). If rain comes before November 15th then the ditches must be established prior to the rain event. Site distance must be maintained according to Mendocino County Department of Transportation Standard No. A53.
- **Site #9:** Re-establish ditch at end of logging operations (November 15th). If rain comes before November 15th then the ditches must be established prior to the rain event. Permittee is permitted to remove rocks and replace once logging operations are completed.
- **Site #10:** Re-establish ditch at end of logging operations (November 15th). If rain comes before November 15th then the ditches must be established prior to the rain event. Site distance is to be maintained according to Mendocino County Department of Transportation Standard No. A 53. Permittee is permitted to cut into the hill bank. If the hill bank fails and needs to be stabilized, Cal Fire will repair at their expense to the satisfaction of Mendocino County Department of Transportation. If the hill bank causes debris to encroach onto the County Road, Cal Fire will remove at their expense.

- Site #11: Permittee is permitted to place energy dissipaters (slash) below County Road in order to prevent runoff from County Road from delivering sediment to Class II watercourse below. The County Road drainage is to remain unaltered.
- Site #12: Re-establish ditch at end of logging operations (November 15th). If rain comes before November 15th then the ditches must be established prior to the rain event. Site distance must be maintained according to Mendocino County Department of Transportation Standard No. A53.
- Site #13: Permittee is permitted to reopen existing seasonal road encroachment. Permittee is not permitted to alter the drainage features at this encroachment location.
- Site #14: Permittee is permitted to place aggregate base and maintain the approach at their expense. Permittee must sweep the asphalt road and prevent debris from encroaching onto the County Road.
- Site #15: Permittee is permitted to reopen existing seasonal driveway approach. Site distance is to be maintained according to Mendocino County Department of Transportation Standard No. A 53. Traffic safety signs must be posted at this location during operations.

STIPULATIONS: *Field Review modifications supersede standard stipulations.*

All work shall be done in accordance with the General Provisions, Standard Drawing No. A51B, A51C, A52, A53, Exhibit "A", Exhibit "B", approved Water Pollution Control Plan and/or Special Provisions, and Traffic Control Plan attached hereto. Class II aggregate base (minimum of 8-inches in depth) shall be placed on the driveway.

PERMITTEE's attention is specifically directed to the attached drawings, regarding surfacing and grading requirements.

Care shall be exercised to maintain a continuous and uninterrupted flow of roadside drainage and avoid directing driveway drainage onto or toward the traveled way of the County Road.

All traffic control shall conform to the Caltrans California Manual on Uniform Traffic Control Devices (California MUTCD) 2014 edition. Copies of the California MUTCD are available online at:

http://www.dot.ca.gov/hq/traffops/engineering/mutcd/ca_mutcd2014.htm

All persons engaged in traffic control shall be ATSSA certified flaggers.

PERMITTEE/LANDOWNER shall **CONSTRUCT AND MAINTAIN** proper sight distance as indicated on the Driveway Approach Site Distance drawing, A53, attached to and made a part of this permit.

This permit does not relieve PERMITTEE from the responsibility of obtaining all applicable permits and/or licenses as may be required from other public agencies and/or commissions. Failure by PERMITTEE to secure all necessary and applicable permits and/or licenses in connection with the work or activity herein authorized shall nullify this permit.

As required by paragraph No. 27 of the attached Exhibit "A" the amount of surety for work authorized by this permit shall be \$0.

NOTICE: The Government Code of the State of California requires that, except in an emergency, every person planning to conduct any excavation shall contact the appropriate regional notification center, at least two (2) working days, but not more than fourteen (14) calendar days, prior to commencing that excavation, if the excavation will be conducted in an area which is known, or reasonably should be known, to contain subsurface installations. The appropriate regional notification center for Mendocino County is:

USA North: DIAL 8-1-1

PERMITTEE/PROPERTY OWNER does hereby recognize and accept any surface water directed upon land adjacent to the County Highway as a result of the permitted encroachment, and does hereby release and otherwise hold harmless the County of Mendocino, its officers and employees from any and all responsibility in connection with the possible diversion of surface water.

This permit is issued for only that portion of the planned construction that may lie within the county road right of way. PERMITTEE, by exercising the rights granted herein, accepts full responsibility to determine whether or not the planned construction is within the said right of way.


The GRANTOR may at its discretion close the approach if mud or gravel is tracked on to the traveled way in quantities which grantor deems hazardous to traffic or damaging to the highway.

Pursuant to Streets and Highways Code Section 1463 this PERMIT is revocable on five days' notice and the encroachment must be removed or relocated as may be specified by the road commissioner in the notice revoking the PERMIT and within a reasonable time specified by the road commissioner unless the permit provides a specified time.

This permit authorizes no work, improvement, or encroachment other than that specifically described hereon.

The rainy season shall be designated as the period from October 15th through April 15th. PERMITTEE may be required to implement additional erosion and sediment control measures and be subject to increased inspection frequency for projects that are started and or completed during the rainy season.

VALIDATION
HOWARD N. DASHIELL
Director of Transportation

By: 
Justin Brandt
Engineer II - Permits

NOTICE: It may not be in the owner's interest to pay for work done until owner has a copy of the final inspection letter in possession indicating work has been accepted as complete.

CONSTRUCTION SHALL BE COMPLETED BY 11/15/2017 OR THE PERMITEE MUST FILE FOR A TIME EXTENSION.

Exhibit A, Attachment 2
Maps, Site Plan, and Permits
Encroachment Permit

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY

Edmund G. Brown Jr., Governor



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

Jackson Demonstration State Forest
802 North Main Street
Fort Bragg, CA 95437
(707) 964-5674 fax: (707) 964-0941
Website: www.fire.ca.gov/resource_mgt/resource_mgt_stateforests_jackson.php



February 18, 2017

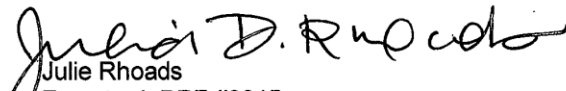
Justin Brandt
County of Mendocino
Department of Transportation
340 Lake Mendocino Drive
Ukiah, CA 95482-9432

Dear Mr. Brandt,

Enclosed is an application and payment for an encroachment permit. The project is associated with multiple encroachments to County Roads 408 and 409 for seasonal logging roads associated with the South Fork Caspar Timber Harvest Plan on Jackson State Forest.

If you have any questions please contact me at julie.rhoads@fire.ca.gov or Kirk O'Dwyer, the project forester, at kirk.odwyer@fire.ca.gov, or at the number listed above.

Sincerely,


Julie Rhoads
Forester I, RPF #2815
Jackson Demonstration State Forest

Enclosed: Encroachment permit application, payment, project descriptions, & 4 extra copies Site Maps

Exhibit A, Attachment 2
Maps, Site Plan, and Permits
Encroachment Permit

Contractor Name
Contract # 8CA00000
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DO NOT WRITE IN SHADED AREAS – FOR COUNTY USE ONLY

COUNTY OF MENDOCINO DEPARTMENT OF TRANSPORTATION 340 Lake Mendocino Drive, Ukiah, CA 95482 STANDARD ENCROACHMENT PERMIT APPLICATION				FOR COUNTY USE ONLY <input type="checkbox"/> CASH <input checked="" type="checkbox"/> CHECK # <u>589570</u> <input type="checkbox"/> ESTABLISHED CREDIT	
In Compliance With Mendocino County Code And California Streets & Highways Code The Undersigned Hereby Applies For Permission To Construct The Following Improvement Or Otherwise Encroach Upon A County Road Reservation Or Right Of Way, As Follows: <i>Complete all items below. If item is not applicable enter "N/A"</i> <i>Application is not complete until all required attachments are included.</i>				APPLICATION NUMBER <u>TU</u>	
City		Assessor Parcel Number <small>11851014, 118550022, 11855004, 11855005, 11854006</small>		Date Received	Entered By <u>Danya</u>
Situs Address (Street #) <u>varies</u>		Street or Road name <u>Little Lake Road, 408 & Caspar Little Lake Road, 409</u>		Total Permit Fee <u>400.00</u>	County Road # <u>408-1409</u>
Work Start Date (month/day/year) <u>2017</u>		Work End Date (month/day/year) <u>2019</u>		Surety Amount	County Yard <u>FB</u>
Receipt No. <u># 355658</u>					
EXCAVATION		Maximum Depth <u>n/a</u>	Average Depth <u>n/a</u>	Average Width <u>20</u>	Length <u>varies</u>
PIPES		Type <u>n/a</u>	Diameter <u>n/a</u>	Voltage or PSIG <u>n/a</u>	Road Surface Type <u>dirt</u>
FULLY DESCRIBE WORK TO BE PERFORMED WITHIN COUNTY RIGHT OF WAY. (Who, What, Where, When, Why, How) Attach complete drawings (four sets) folded to 8 1/4 "by 11" showing specifications, calculations, maps etc. Attach additional pages if necessary. Incomplete or illegible applications will be returned for correction.					
<p>Jackson Demonstration State Forest is proposing to build up approaches to County Road 408 and 409 for temporary road access at locations as shown on the attached map. The existing and proposed seasonal roads and landings will be reopened during 2017-2019 and will be used for logging operations. Equipment will include an excavator, tractor, grader, and a dump truck. Equipment will not cut into the running surface of the existing County Road. Any berm along the county road may be bladed off if needed to facilitate access to existing seasonal roads. No culverts will be installed. Following use the temporary roads will be blocked or gated.</p> <p>Signs will be placed at each end of the project area indicating "Truck Traffic" to the public. Traffic control will be used as needed during construction.</p> <p>Other work performed under this permit may include: dust abatement, routine surface maintenance, and roadside brushing.</p>					
*Applicants for driveway encroachments must mark the intended driveway location by a stake with orange paint or flag bearing the applicants last name, the address, and the Assessor's parcel number.					

**Exhibit A, Attachment 2
Maps, Site Plan, and Permits
Encroachment Permit**

Contractor Name
Contract # 8CA00000
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Is the project in the Coastal Zone? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If YES Enter CDP or CE Number _____		
Is a subdivision, or other approval required for this project? If yes describe and enter the subdivision number and submit plans. n/a		
Is a building permit or any other approval/permit(s) required for this project? If yes include permit Number. Timber Harvest Plan # 1-16-124 MEN (South Fork Caspar)		
<u>Construction Site Stormwater Pollution Compliance Checklist:</u> Please answer the following questions.		
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Is the project located within the Mendocino County Municipal Separate Storm Sewer System (MS4) area of Ukiah or Fort Bragg? Use the following steps to determine if a project is located within a MS4 Permit area: <ul style="list-style-type: none"> • Review MS4 Permit area maps and search list of parcels within MS4 Permit areas available on the Mendocino County Department of Transportation Permits webpage at: www.co.mendocino.ca.us/dot/dotpermits.htm • Contact the Mendocino County Department of Transportation Main Office by phone at: (707) 463-4363 for assistance. <p>If the above question is answered "YES", Applicant <u>must</u> submit a Water Pollution Control Plan as part of the Encroachment Permit Application. Please complete the Water Pollution Control Plan Template available at the Mendocino County Department of Transportation Main Office or online at: www.co.mendocino.ca.us/dot/dotpermits.htm. Applicant may also prepare a Water Pollution Control Plan following the guidelines also available at the department main office or online.</p>		
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Will project activities disturb one (1) acre or more of soil? If YES, provide State Construction General Permit WDID#: _____ Is the SWPPP attached? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <p>All projects that disturb one (1) acre or more of soil must obtain coverage under the State Water Resources Control Board Construction General Permit (CGP).</p> <p>IMPORTANT NOTE: For projects that do not require a Water Pollution Control Plan, Mendocino County Code Chapter 16.30 et. seq., requires that "Any person performing construction and grading work anywhere in the County shall implement appropriate Best Management Practices to prevent discharge of construction waste, debris or contaminants from construction materials, tools and equipment from entering the storm drainage system." The Department of Transportation may require Encroachment Permit Applicants to submit a WPCP for any project within the County right of way which will or may result in pollutants entering the storm drainage system or Waters of the U.S.</p>		
<u>Permit Checklist:</u> Permit WILL NOT be processed without the following information.		
<input checked="" type="checkbox"/> Completed drawings (four sets) folded to 8 1/2 " by 11" (showing specifications, calculations, maps etc.)	<input type="checkbox"/> Water Pollution Control Plan, if applicable	
<input checked="" type="checkbox"/> Appropriate Permit Fee	<input type="checkbox"/> Copy of State Water Resources Control Board CGP SWPPP, if applicable	
The Undersigned Agrees That The Work Will Be Done In Accordance With County Rules And Regulations And Is Subject To Inspection And Approval.		
Applicant, Agent or Responsible Person Julie Rhoads	Mailing Address 802 North Main Street / Fort Bragg, CA 95437	Telephone Number 707-964-5674 2119
Signature <i>Julie D. Rhoads</i>	Email Address julie.rhoads@fire.ca.gov	Fax Number
Contractor unknown at this time	Mailing Address	Telephone Number
License No.	Email Address	Fax Number
Property Owner Print Name Jackson Demonstration State Forest	Mailing Address 802 North Main Street / Fort Bragg, CA 95437	Telephone Number 707-964-5674
Authorized Signature of Property Owner (Agent signing must include power of attorney) <i>Pam Jintat</i>		Date Signed 2/16/17



Mendocino County Road 408 & 409 Encroachment Project

Contents

1. Project Information
2. BMPs
3. Site Maps & Descriptions

Project Information

Location: Mendocino County Road 408 and 409, from approximately 7.8 miles on Road 408 to the 3.0-mile marker on Road 409. The legal description is T17N, R17W, Sections 9-12 and 14-16; MDB&M.

**Permit application
Prepared for:** Jackson Demonstration State Forest
802 N. Main Street
Fort Bragg, CA 95347
(707) 964-5674

**Permit application
Prepared by:** Julia D. Rhoads
Forester I, RPF #2018
For: Kirk O'Dwyer
Forester I, RPF #2621

Project Description

In the area of the proposed encroachments, County Road 408 runs generally northeast-southwest along the ridge dividing the Caspar Creek and the Berry Gulch and Mouth of Big River Planning Watersheds. County Road 409 runs generally west-east along the ridge dividing the Caspar Creek and the Russian Gulch Planning Watersheds. Jackson Demonstration State Forest (JDSF) has a timber harvesting project which will require the use of seasonal road approaches to the county road for hauling logs. The project will involve construction or reopening existing seasonal logging roads, as well as road abandonment, road drainage improvements, and associated with the South Fork Caspar Timber Harvest Plan (#1-16-124 MEN).

Equipment used to open roads may include a tractor, excavator and grader. Equipment will not cut into the running surface of the existing County Road 408 or 409. No culverts will be installed during construction and use. Any inside ditch along the county road removed to facilitate hauling will be returned to original condition at prior to the winter period or at the end of timber operations. Encroachments that are utilized for logging operations will be rocked 30' from the edge of the county road and to a minimum compacted depth of 6". Following completion of operations, these roads will be blocked or gated.

The encroachments are all on gentle ridge-top slopes. Logging road encroachments are not adjacent or associated with watercourses. Class III watercourses are downstream/downhill of the county road at sites 2 and 11. At these locations the drainage from the county road will be improved to prevent sediment flow into downstream Class IIIs. The road encroachment improvements and/or construction are expected to commence after April 15 and will be completed by November 15 during each year of expected timber operations (2017-2020).

Best Management Practices

General Prevention and Minimization Measures for Controllable Sediment Discharge

The encroachment maintenance and construction projects are (or will be) associated with approved Timber Harvest Plans, which provide BPMs for erosion control, soil stabilization, and road construction and maintenance standards. THPs are reviewed by multiple agencies as well as an engineering geologist during project preparation. The THP includes an Erosion Control Plan which is reviewed and administered by the North Coast Regional Water Quality Control Board (NCRWQCB). The THP is enrolled under the NCRWQCB General Waste Discharge program.

In addition to the site specific measures detailed within the environmental documents above, the general measures proposed in this project, either as required by another State or Federal regulating agency, or as a matter of Jackson Demonstration State Forest policy, will prevent or minimize future sediment delivery. These measures include, but are not limited to:

Watercourse Protection Zones

All watercourses receive a protection zone commensurate with classification. The protection may range from limiting equipment operations to exclusion of all harvest activities.

Within these zones, measures to stabilize soil erosion, and prevent discharge of sediment into waters in amounts deleterious to aquatic species or the quality and beneficial uses of water, or that threaten to violate applicable water quality requirements, are applied. No watercourse protection zones occur within the encroachment project areas.

Roads

Practices related to the construction and maintenance of truck roads are key factors in the control of sediment that could be produced from timber harvesting operations. To address this concern, JDSF has focused considerable effort on the proper design and construction of forest roads. The road construction program is geared toward developing mid-slope and ridge top transportation networks that avoid steep slopes and unstable areas. In circumstances where it has been necessary to construct roads on steep slopes, full bench and minimum width roads have been built using end-haul equipment and state of the art construction techniques.

JDSF road construction and maintenance standards and techniques have been developed in conjunction with the *Handbook for Forest, Ranch, and Rural Roads* (Weaver, Weppner, and Hagans), and *Designing Watercourse Crossings for Passage of 100-year Flood Flows, Wood and Sediment* (Cafferata, Spittler, Wopat, Bundros, and Flanagan).

Maintenance

JDSF compliments proper road design and construction with a strong program to ensure that roads are adequately maintained, particularly in regard to drainage structures and erosion control. JDSF implements the following road maintenance program in its operating areas to ensure that potentially significant impacts from erosion processes related to road maintenance are avoided:

- Roads not surfaced for winter use will be gated or otherwise blocked during the winter period to prevent unauthorized vehicular access and damage to drainage structures. Access on these roads during the winter period will be limited to that necessary for timber falling, or hazard abatement burning, road maintenance inspections, reforestation, wildlife surveys, botanical surveys, and/or timber harvest plan layout. Where appropriate, such access will be restricted to the use of low ground pressure all-terrain vehicles.
- Throughout the year, and prior to the onset of the winter period, JDSF forestry staff and road construction foremen will inspect all roads appurtenant to timber harvest plans operated that year. The inspection will assess the effectiveness and quality of all newly installed and existing erosion control structures, and will identify areas needing additional maintenance prior to the winter period. A list will

be prepared of those areas identified as needing additional work or repair. Items to be assessed as part of the road inspection program include the following:

- Waterbars will be inspected to insure proper spacing, depth, interception of the ditch line, and complete diversion of water flow from the road surface.
- Ditches will be inspected to insure that they are properly functioning and free of debris that could plug the ditch or a culvert and cause diversion of water onto the road surface.
- The road prism will be inspected to identify areas exhibiting ponding, inadequately breached outside berms, unprotected fresh fill slopes, or other sites that exhibit a potential for cut bank or fill failure.
- After the pre-winter inspection is completed, a detailed list of maintenance requirements will be given the JDSF road construction and maintenance supervisors to ensure that all observed problems are corrected prior to the winter period.

Winter Operations

"Winter period" means the period between November 15 and April 1.

- All water-breaks will be installed no later than the beginning of the winter period of the current year of timber operations.
- Installation of drainage facilities and structures is required from October 15 to November 15 and April 1 to May 1 on all constructed skid trails and tractor roads prior to sunset if the National Weather Service forecast is a "chance" (30% or more) of $\frac{1}{4}$ " rain within the next 24 hours.
- Administrative access and maintenance of roads are the possible activities that may occur during the winter period.
- When appropriate, only low ground pressure all-terrain vehicles will be used during the winter period when traveling over seasonal or temporary roads to access the harvest area.
- Yarding, log hauling and construction of logging roads, tractor roads, or landings will not take place during the winter period as part of this THP.

Log Hauling

Log hauling will only occur on haul roads that have a stable operating surface. No log hauling shall occur at any time of the year if greater than .25 inch of precipitation has fallen at the McGuire's RAWs station during the preceding 24 hour period. Hauling may resume only after rain has ceased for 24 hours and no road related turbid water is observed in inside ditches along the roads where hauling may occur. The LTO can access the weather station at the following website:

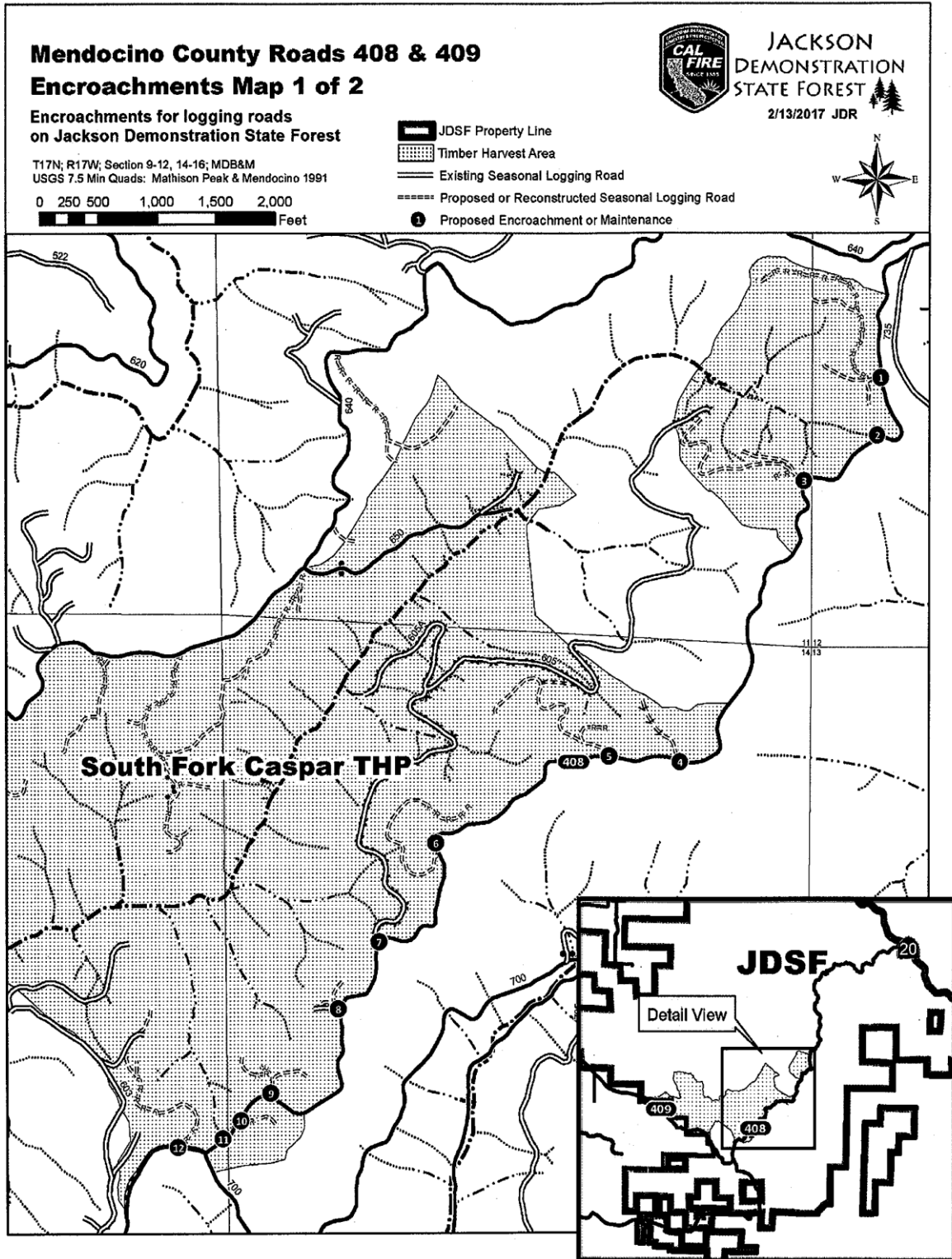
<http://www.wrh.noaa.gov/mesowest/getobext.php?sid=MCGC1&table=1&banner=off>. During and following periods of significant rain while timber operations are ongoing, the LTO shall inspect logging roads for proper functioning of drainage facilities and structures, and shall take appropriate action to ensure proper functioning

**Summary of Logging Road Construction & Maintenance BMPs
For Water Pollution Prevention on Encroachments to County Road 408 and 409**

- Blade berms or fill inside ditches without cutting into the county road.
- In order to avoid cutting into the county road, a through-fill will be constructed until the new road construction is off the county road.
- After completion of operations, maintain approaches to the county road to drain water away from county road, or reinstall or maintain county road inside ditch.
- Rock surface of new encroachment from 30' of the edge of the county road to a compacted depth of 6".
- Gate or block seasonal roads to prevent vehicular access and damage to drainage structures.
- Logging Road encroachments do not cross or drain onto to any watercourse or wet area. No significant impacts to the beneficial uses of water are anticipated.
- Encroachments are, or will be, associated with Timber Harvesting Plans and Erosion Control Plans, and have received multidisciplinary agency review.
- The projects are expected to take place outside the winter period (winter period defined as April 15 to November 15).
- Road construction and erosion control structures will receive inspections and maintenance as required by previously stated permits. These inspections will occur after the completion of operations and through the winter period (November 15 – April 1). As a result of these inspections, any site which will require mitigations will be reported to the County Department of Transportation.
- Log hauling will occur only on roads that have a stable operating surface. Log hauling will be suspended during and for as long as necessary during a storm event at any time of year.
- The County Road shall be treated for dust abatement when necessary.
- Damage to the County Road due to log hauling will be repaired by the LTO or by JDSF as necessary.
- Construct and maintain safety sightlines per the permit guideline for driveway approach minimum stopping sight distances (drawing A53).
- Traffic safety signs will be posted during operations.
- Traffic control will be utilized where and when needed.

Exhibit A, Attachment 2
Maps, Site Plan, and Permits
Encroachment Permit

Contractor Name
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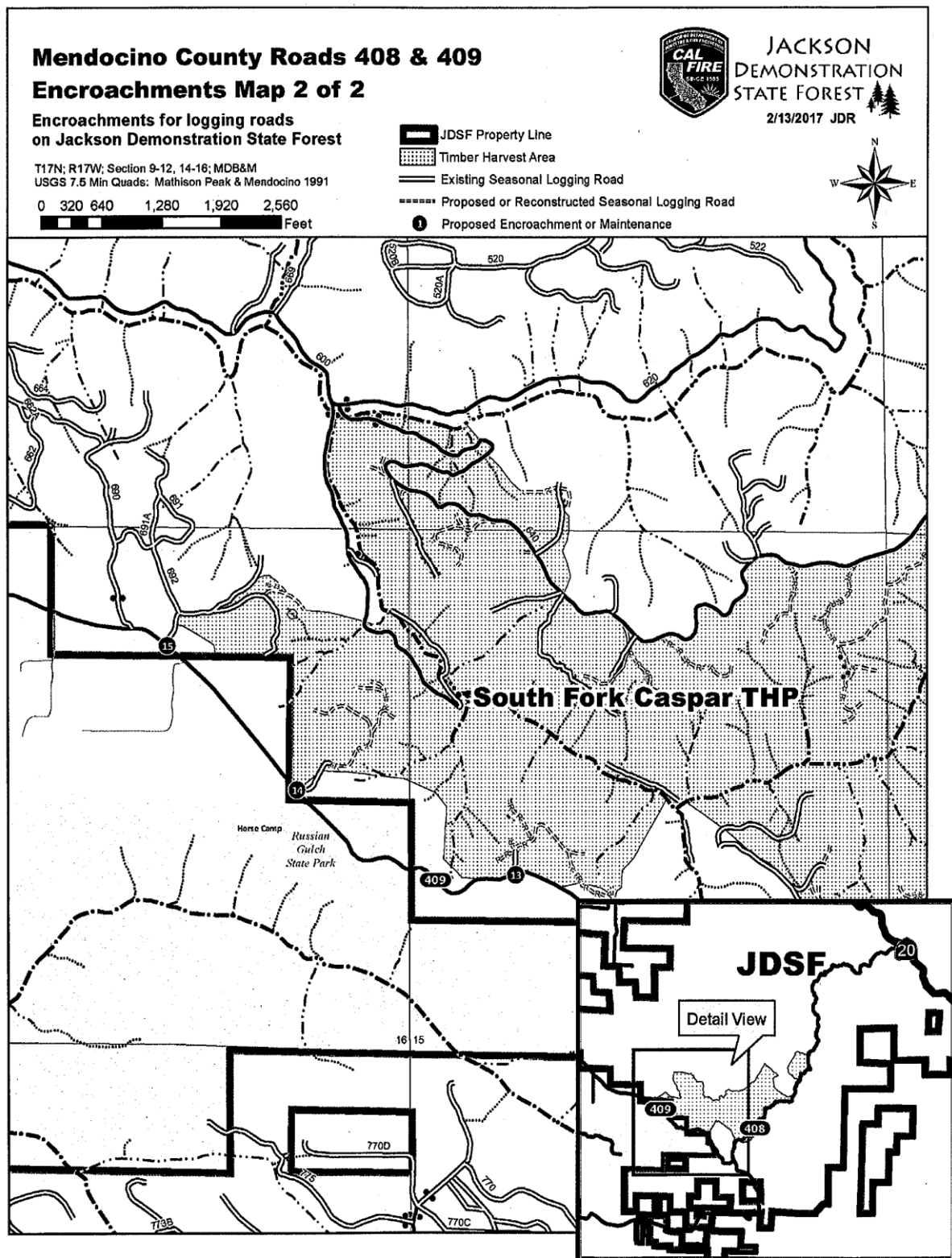


Exhibit A, Attachment 2
Maps, Site Plan, and Permits
Encroachment Permit

Contractor Name
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Site Descriptions

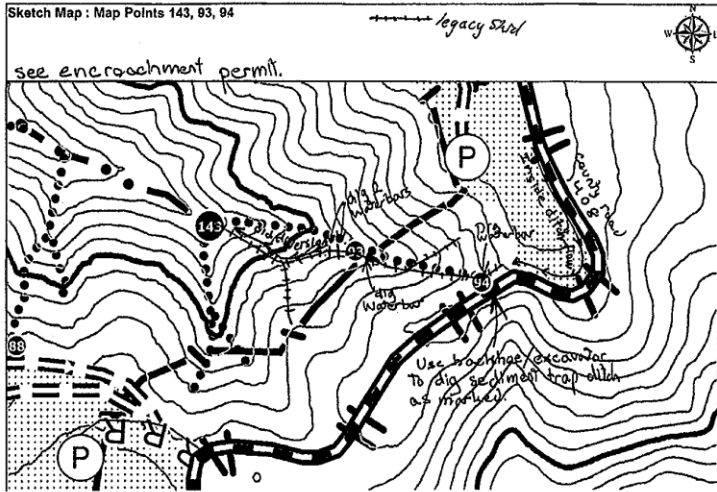
Site Number	Description & Treatments
1	New seasonal road construction. Reestablish county road drainage prior to winter period.
2	Ditch as marked may be 2' wide x 2' deep. Do not cut into County Road prism or place spoils on the County Road. Road drainage shall be unaltered. Sketch below for reference.
	
3	New seasonal road construction. Reestablish county road drainage prior to winter period.
4	New seasonal road construction across from the Forest History Trail trailhead. Reestablish county road drainage prior to winter period. North of the encroachment site, reduce the height of the old growth stump to 4' or less, and remove 2 Douglas-fir blocking sightline.
5	New road construction. Reestablish county road drainage to break in slope prior to winter period.
6	New seasonal road construction.
7	Reopen existing seasonal road through the rock quarry.
8	New seasonal road construction. Reestablish county road drainage prior to winter period. Remove trees blocking sightline in both directions.
9	New seasonal road construction.
10	New seasonal road construction. Reestablish county road drainage prior to winter period. Remove trees blocking sightline to the south.
11	Placement of energy dissipater below County Road preventing runoff from county road from delivering sediment to Class III watercourse below. No alteration to County Road drainage.
12	New seasonal road construction. Reestablish county road drainage prior to winter period. Remove trees blocking sightline to the northeast.

Exhibit A, Attachment 2
Maps, Site Plan, and Permits
Encroachment Permit

Porter TSA

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13	Reopen existing seasonal road encroachment. Maintain current encroachment layout and drainage features.
14	Reopen existing seasonal road encroachment. Rock approach 100' to county road with clean aggregate.
15	Reopen existing seasonal road encroachment. Remove trees blocking sightline in both directions.

**ENCROACHMENT PERMIT
GENERAL PROVISIONS**

1. A permit is issued under the provisions of Chapter 5.5 of Division 2 of the California Streets and Highways code and Chapter 15.20 of Volume 1, and Chapter 16.30 of Title 16 of the Mendocino County Code. Except as otherwise provided for public agencies and franchise holders, the permit is revocable with five (5) days notice.
2. It is understood and agreed by the applicant that doing any work under the permit shall constitute an acceptance of the provisions, terms, conditions, and/or restrictions thereof.
3. A permit is granted with the understanding that this action is not to be considered as establishing any precedent on the question of the expediency of permitting any certain kind of encroachment within the County highways rights of way.
4. Before starting any work authorized by the permit, the permittee shall notify the road foreman/inspector in whose area the work is to be done. Such notice shall be given at least 48 hours in advance of the time work is to start.
5. Prior to starting and during performance of any work authorized by the permit, the permittee shall implement, inspect, and maintain appropriate construction site Best Management Practices (BMPs) to the maximum extent practicable to prevent the discharge of sediment, construction waste, debris or contaminants from construction materials, tools and equipment from entering the storm drainage system and/or any receiving surface waters designated as waters of the U.S. Upon completion of work authorized by the permit, the permittee shall ensure that all disturbed soil areas have been sufficiently stabilized and that all temporary construction site BMPs that are no longer needed have been removed.
6. The permit shall be kept at the site of the work and must be shown to any representative of the grantor or any law enforcement officer upon demand.
7. PUBLIC CONVENIENCE – Applicant shall so conduct his or her operations as to offer the least possible obstruction and inconvenience to the public. Unless otherwise provided on the permit, all public traffic shall be permitted to pass through the work area with as little inconvenience and delay as possible. Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately by the permittee at his or her expense.
8. PUBLIC SAFETY – Should the applicant's operations create a condition hazardous to traffic, or to the public, he or she shall furnish, erect, and maintain, at his or her expense, such fences, barricades, lights, signs, and other devices as are necessary. Applicant shall furnish, at his or her expense, such qualified flaggers and guards as are necessary to prevent accidents, damage, or injury to the public. No material or equipment shall be stored where it may interfere with the free and safe passage of public traffic.
9. All work shall conform to recognized standards of construction and those specifications prescribed on the face of the permit. All work shall be done subject to supervision of and to the satisfaction of the grantor. Upon completion of the work, all brush, timber, scraps, and material shall be entirely removed and the right of way left in as presentable condition as before work started. For work which requires the presence of an employee of the grantor as inspector, the salary and other incidental expenses of such inspector during the work shall be paid by the permittee upon presentation of a bill therefore.

Exhibit A, Attachment 2
Maps, Site Plan, and Permits
Encroachment Permit

10. It is understood by applicant that whenever construction, reconstruction, or maintenance work on the highway may require the relocation of the installation provided for herein, it shall, upon request of the grantor, be immediately moved by and at the expense of the permittee.
11. An encroachment permit does not relieve PERMITTEE from the responsibility of obtaining all applicable permits and/or licenses as may, in connection with the work or activity herein described, be required from other public agencies and/or commissions. Failure by applicant to secure all necessary and applicable permits and/or licenses shall nullify the permit.
12. **LIABILITY FOR DAMAGES** – applicant is responsible for all liability for personal injury or property damage which may arise out of work herein permitted or which may arise out of failure of permittee to perform his or her obligations under the permit with respect to maintenance. In the event any claim of such liability is made against the County of Mendocino, or any department, officer, or employee thereof, applicant shall defend, indemnify, and hold them harmless from such claim. A permit shall not be effective for any purpose unless and until the above named permittee files with the grantor a surety in the form and amount required by said grantor, unless specifically exempted on the face of said permit. The requirement that a surety be filed does not apply in the event the permittee is a government board, which derives its revenue by taxation.
13. **DUE CARE** – shall be exercised to avoid injury to existing highway improvements or facilities. County road surfacing shall be replaced equal to or better than the surfacing disturbed. The cost of all materials, labor, etc. necessary for installation of the encroachment shall be borne by the permittee. The cost of any labor and materials for repairs to the road by County forces, made necessary by the work done under the permit or lack thereof, shall be charged to the permittee at actual cost.
14. If the work herein contemplated shall interfere with the established drainage, ample provision shall be made by the permittee to provide for it as may be directed by the grantor.
15. Upon completion of underground or surface work of consequence, the permittee shall furnish to the Department of Transportation a plan showing the location and details of such work.
16. The permittee agrees, by the acceptance of the permit, to exercise reasonable care to maintain properly any encroachment placed by him or her in the highway and to exercise reasonable care in inspecting for and immediately repairing and making good any injury to any portion of the highway which occurs as a result of the maintenance or lack of maintenance of the encroachment in the highway or as a result of the work done under the permit, including any and all injury to the highway which would not have occurred had such work not been done or such encroachment not been placed therein.
17. Pursuant to the California Business & Professions Code Section 8771(b) and the Streets and Highways Code Section 1810.5, the PERMITTEE shall be responsible to research, locate, and protect all survey control monuments that may exist within the project area that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control. All survey monuments that will be disturbed or removed by the PERMITTEE shall be relocated, replaced, or reset under the supervision of a Licensed Land Surveyor or Registered Engineer authorized to practice land surveying in the State of California. In addition, a Record of Survey or Corner Record, as applicable, shall be filed and/or recorded, in accordance with the provisions of California Business & Professions Code Section 8771(b).

EXHIBIT "A"

1. Unless otherwise specified on the face of the permit, open trench method may be used. Where existing surfacing is to be disturbed, the pavement shall be saw cut at least six (6) inches, on each side, wider than the trench.
2. A minimum cover of 30 inches shall be maintained over all underground facilities (including service laterals) installed within the County highway (as defined in the California Streets and Highways Code). Said cover shall be measured from the ground surface at the facility or the adjacent road grade, whichever is deeper.
3. Where excavation is made within the limits of the County road traveled way, improved roadway shoulder, or driveway, the backfill material shall be structure backfill (as defined in Section 19-3.06 of the California State Standard Specifications) having a sand equivalent of not less than 20 and conform with the following gradation requirements:

Percent passing 3" sieve:	100
Percent passing #4 sieve:	35 - 100
Percent passing #30 sieve:	20 - 100

The backfill material shall be compacted in uniform layers (not to exceed eight (8) inches) to 95% relative compaction (California Test Method No. 231).
4. Unless otherwise specified on the face of the permit, in paved areas the top portion of the trench shall be backfilled with twelve (12) inches of Class 2 Aggregate Base (compacted to 95% minimum) and compacted asphalt concrete. Asphalt concrete thickness to match existing pavement (3" minimum) and shall be placed in lifts not exceeding three (3) inches in thickness. Prior to paving, vertical faces of existing pavement and/or structures shall be painted with coating of liquid emulsified asphalt for bonding and watertight joints. In unpaved traveled way, shoulder, or driveway areas, the top portion of the trench shall be backfilled with twelve (12) inches of Class 2 Aggregate Base compacted to 95% minimum.
5. The asphalt concrete shall conform to the requirements of Type B, ½" Maximum, Medium, as stated in the State of California, Department of Transportation, Standard Specifications, latest edition. When conditions are such that Type B, ½" Maximum, Medium asphalt concrete is not readily available or its use is impractical, due to inclement weather conditions or other reasons, as approved by the Department of Transportation, a TEMPORARY patch using "Cold Mix" shall be used. Said temporary patch shall be removed and replaced with Type B, ½" maximum asphalt concrete at the earliest possible date.
6. The phrase "improved roadway shoulder" as used herein, is defined as being all that area adjacent to the roadway, which is currently being used or could be used for vehicle parking and/or pedestrian traffic. As a minimum, it shall be all that area within six (6) feet of the roadway.
7. In lieu of Structure Backfill, backfill material may, when approved by the Director of Transportation or his authorized representative, consist of a two (2) sack slurry cement conforming to provisions in Section 19-3.062, "Slurry Cement Backfill" of the California Department of Transportation Standard Specifications.
8. When Slurry Cement Backfill is used:
 - a. The 12" of Class 2 Aggregate Base may be eliminated and the Asphalt Concrete placed directly onto the Slurry Cement Backfill.
 - b. The Slurry Cement Backfill shall be struck off in a uniform manner prior to placing Asphalt Concrete or allowing traffic to drive on it.
 - c. If the time frame to allow traffic to drive on the Slurry Cement Backfill is less than four (4) hours, traffic rated steel plates must be placed over the backfilled trench to allow traffic to cross over the trench.
9. Whenever traffic plates are used, they shall be steel (not plywood). Traffic plates shall be adequate to support legal highway loads and shall not be bent or warped. Traffic plates shall not be placed longitudinal to the roadway in multi-plate applications. All exposed edges of the plates shall be ramped with temporary paving (cold mix or cut back) to provide a smooth driving surface. Traffic plates shall be pinned or doweled in-place, have a non-skid treatment on the surface, and shall be welded together in multi-plate applications. Barricades with flashing lights shall be maintained on both sides of the road where traffic plates are used. Traffic plates

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- shall not remain in place for more than three (3) days without prior authorization from the Department of Transportation.
10. Where excavation is made beyond the limits of the County Road surfacing, improved roadway shoulder, or driveway surfacing, the backfill material may consist of locally available material (Select Backfill) and shall be compacted to a relative compaction of 90% (California Test Method No. 231).
 11. Compaction shall be achieved by mechanical means. Ponding or jetting shall not be attempted within the County Highway.
 12. Care shall be exercised to avoid disturbing or damaging roadway drainage facilities. Any roadway drainage disturbed shall be restored or replaced in a manner satisfactory to the Director of Transportation or his authorized representative.
 13. A minimum clearance of 24 inches shall be maintained between underground facilities and existing roadway drainage culverts.
 14. The maximum trench that may be opened shall be limited to that which can be completely backfilled (compacted) and shaped to accommodate traffic or provide for drainage during the same working day.
 15. Until repaving is completed, smooth, dust-free riding surfaces shall be maintained over all excavations. When ordered by the Director of Transportation or his authorized representative, a satisfactory temporary patch shall be applied pending completion of repaving.
 16. PERMITTEE shall provide compaction and/or other materials tests as directed by the Director of Transportation or his authorized representative, to verify compliance with the backfill requirements of this permit. Said tests shall be made under the direct supervision of a Registered Civil Engineer. As a minimum, one compaction test, consisting of at least three readings, shall be made for each 250 feet of backfilled trench. Tests shall be representative of all levels within the trench above the conduit zone. Copies of all test reports shall be furnished to the Department of Transportation in a timely manner.
 17. SPECIAL CONDITIONS REGARDING CONSTRUCTION BETWEEN OCTOBER 15TH AND APRIL 15TH.
Work may proceed between October 15th and April 15th only when weather and soil/ground conditions as determined by the Director of Transportation or his authorized representative, are such that construction can proceed without causing unacceptable damage to existing highway facilities or creating unsafe conditions or unacceptable inconvenience to the public.
 - a. The maximum trench that may be opened shall be limited to that which can be completely backfilled (compacted) and shaped to accommodate traffic or provide for drainage during the same working day.
 - b. No trench shall be excavated more than one hundred (100) feet in advance of conduit laying nor more than two hundred fifty (250) feet in advance of the backfilling operation. Completion of the trench backfill to include paving, shall not be more than five hundred (500) feet behind the excavation operation.
 - c. Unless otherwise approved by the Director of Transportation or his authorized representative, all excavation spoil shall be placed directly into trucks and disposed of outside of the public road reservation. All dust, mud, or debris shall be cleaned from roadway surfaces daily (no exceptions).
 - d. All drainage ditches and culverts shall be kept open and clear of mud and debris.
 - e. Within 24 hours of trench opening, temporary resurfacing shall be placed at all roadway and driveway crossings and at all locations where trench is in a traffic lane.
 - f. If PERMITTEE fails to comply with these provisions pertaining to work between October 15th and April 15th, the encroachment permit will be temporarily revoked and no additional work, other than maintenance, restoration, or remedial work, will be permitted during said time period.
 18. Weather and ground conditions must be such that the construction can be accomplished to the requirements prescribed herein and the general provisions provided with the permit, without causing unacceptable damage to the existing highway facilities and without unsafe conditions or unacceptable inconvenience for the traveling public. PERMITTEE shall, at all times, maintain gutters and roadside drainage facilities where they exist to accept any flow from seasonal or unseasonable weather, allowing an uninterrupted flow.

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19. If, in the opinion of the Director of Transportation or his authorized representative, PERMITTEE does not adequately maintain the temporary trench surfaces, County may elect to have the work done by others and recover the full costs thereof from PERMITTEE. If PERMITTEE fails to pay such costs within 10 days of being billed therefore, the permit may be revoked and no work other than the maintenance, restoration, or remedial work will be permitted until payment is received.
20. PERMITTEE'S attention is directed to the General Provisions included with the permit. All work shall be done in strict accordance with the General Provisions and the specifications prescribed therein and on the face of the permit.
21. Traffic shall be permitted to pass through the construction zone at all times with the minimum possible delay. Unless otherwise approved in writing by the Director of Transportation or his authorized representative, no traffic delay shall exceed five (5) minutes.
22. Where plans call for installation of underground facilities on both sides of the road, PERMITTEE shall only work on one side of the road at a time.
23. PUBLIC SAFETY: Whenever the PERMITTEE'S operations create a condition hazardous to traffic or the public, he shall furnish, erect, and maintain, at his expense, such fences, barricades, lights, signs, and other devices as are necessary. The PERMITTEE shall furnish, at his expense, such flag persons and guards as are necessary to prevent accidents or damage or injury to the public and shall conform to the requirements of any sign and traffic manuals (latest editions) issued by the California Department of Transportation. No material or equipment shall be stored where it will interfere with the free and safe passage of public traffic. PERMITTEE is authorized to place flag persons to stop and warn traffic for public safety. Traffic shall not however be unreasonably delayed (5 minutes maximum) except in emergencies or as may be specifically set forth on the face of the permit.
24. PERMITTEE'S ATTENTION IS DIRECTED TO CHAPTER 3.1 (COMMENCING WITH SECTION 4215) OF DIVISION 5 OF TITLE 1 OF THE GOVERNMENT CODE OF THE STATE OF CALIFORNIA, SECTION 4216.9(a) IN PARTICULAR, WHICH STATES IN PART: (a) No permit to excavate issued by any local agency, as defined in Section 4216, or any state agency, shall be valid unless the applicant has been provided an initial inquiry identification number by a regional notification center pursuant to Section 4216.2.
25. This permit is issued for only that portion of the planned work, which may lie within the County Highway or County Highway Right of Way. PERMITTEE, by exercising the rights granted herein, accepts full responsibility to determine whether or not the planned work is within said reservation or right of way.
26. County reserves the right to enter into the construction area to inspect the work in progress and to perform such tests as County deems necessary to satisfy that the work is being accomplished in full compliance with the requirements of this permit.
27. Unless otherwise specified on the face, the permit shall not become effective- and no work shall commence within the County Highway-until PERMITTEE file with the Mendocino County Department of Transportation, surety to secure satisfactory restoration of the County Highway and appurtenant facilities and satisfactory compliance with provisions of this permit. The surety shall be in the form of a Certified or Cashiers Check, Cash, or other form acceptable to the Director of Transportation and shall be in the amount set forth on the face of the permit.

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EXHIBIT "B"

1. SPECIAL CONDITIONS REGARDING WORK DURING THE "WINTER SEASON". "The Winter Season" is defined as being that period between October 15th and April 15th.
2. This Exhibit "B" may be used in conjunction with or in lieu of Exhibit "A" as well as any special notes or conditions listed on the face of any encroachment permit.
3. The Director of Transportation or his authorized representative shall have the authority to supersede this Exhibit "B" at any time.
4. Weather and ground conditions must be such that the construction can be accomplished to the requirements prescribed herein and the General Provisions provided with the permit, without causing unacceptable damage to the existing highway facilities and their appurtenances and without unsafe conditions or unacceptable inconvenience for the traveling public. PERMITTEE shall, at all times, maintain gutters and/or roadside drainage facilities where they exist, to accept any flow from seasonal or unseasonable weather, allowing an uninterrupted flow.
5. In all cases, both the existing ground conditions at the project site, and any and all backfill materials shall and will be in such proper condition, acceptable to the Department of Transportation, and satisfactory to perform the work required.
6. All work including cleanup shall be completed prior to 4 P.M. each workday. No exceptions. At the end of each workday, the area must be left in such condition as to not require maintenance or repairs by the permittee or any other maintenance forces until the Winter Season has ended I.E. prepared for winter suspension.
7. After a period of measurable rain, no work will take place without benefit of a minimum of a 7-day drying out period having taken place together with a 48-hour window of fair weather predicted by the National Weather Service. (A "drying out period" shall consist of at least some sunshine and/or wind to dry the ground, not merely a lack of rain.)
8. An Internet weather site will be determined by the Department of Transportation. Both the Department and the permittee shall monitor that site. Confirmation of the 48-hour weather window and the 7-day drying period, by the Mendocino County Department of Transportation will be necessary and required prior to resuming work after a weather shutdown. This confirmation will be required at the beginning of each week and after any future suspension of work, whether or not such suspension is weather related.
9. Site preparation: All work areas, including staging areas, and any shoulders and/or pullouts involved, or used by equipment will be sufficiently protected prior to any construction activities being started. PERMITTEE shall implement, inspect, and maintain appropriate construction site Best Management Practices (BMPs) to the maximum extent practicable to prevent the discharge of sediment, construction waste, debris or contaminants from construction materials, tools and equipment from entering the storm drainage system and/or any receiving surface waters designated as waters of the U.S.
10. No excavations shall begin without first having sufficient proper materials on-hand, on-site, for any and all backfill operations. All backfill materials shall be of proper moisture content to achieve proper compaction. No excavations shall be permitted to remain open after working hours have elapsed.

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11. All roads and shoulders used by permittee shall be cleaned and free of mud, debris, or other undesirable materials at the end of each work day, and shall remain clean and open to traffic throughout the workday. Since weather prediction is not a precise science, prior to leaving the work site each day, the entire work area shall be left in such a condition to survive the lengthy duration of a winter suspension.
12. Prior to the end of each workday, all excavations, regardless of size, shall be backfilled with Class II Aggregate Base and compacted to 95% relative compaction, or if authorized by the Department, backfilled with 2 sack cement slurry backfill per Section 19-3.062 of the State Standard Specifications.
13. If and when the Department has authorized 2 sack cement slurry for backfill purposes, any and all cement slurry used for backfill purposes must be in place prior to 12 Noon, in order that it will have the required 4 hour minimum setting time prior to allowing traffic to travel over it whether or not the site is in the traveled way.
14. Any violation or non-compliance with the provisions contained herein may result in a total winter suspension. In the event of a total winter suspension, all work will cease immediately until further notice with the exception of cleanup and/or repairs or required maintenance of the project area.
15. It is the responsibility of the permittee to at all times throughout the life of the project, to maintain the project area in a smooth, rut free, debris free, and safe condition for the traveling public. Road surfaces and any and all drainage facilities must be maintained in a clean and safe condition. At the minimum, permittee shall inspect the entire project area and all roads leading in and out of the area that have been used by the permittee or his suppliers, on a weekly basis. During times of severe storms, additional inspections may be required.
16. Permittee shall perform, at no cost to the County, all work necessary to maintain the project area to the above stated requirements. Such maintenance and/or repair work shall be performed in a timely manner to minimize the inconvenience to the traveling public.
17. Permittee shall be responsible for the maintenance and/or repairs of all pot holes or other pavement failures within the project area or upon the roads used by his equipment or that of his suppliers, whether the failures are either directly or indirectly, a result of the work permitted.

**ENCROACHMENT PERMIT
SPECIAL PROVISIONS
STORMWATER POLLUTION CONTROL**

1. In addition to the General Provisions, Exhibit A, and Exhibit B the Permittee shall comply with the following Special Provisions for stormwater pollution control to prevent the discharge of sediment, construction wastes, debris, or contaminants from construction materials, tools, and equipment, from entering the County storm drain system and/or any receiving surface waters designated as waters of the U.S.
2. The Permittee shall be responsible for full compliance with Mendocino County Ordinance No. 4313 Storm Water Runoff Pollution Prevention Procedure (Mendocino County Code Chapter 16.30) and the County's National Pollution Discharge Elimination System (NPDES) Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit requirements.
3. Any activity that would generate fine particles, dust, or debris that could be transported off-site by stormwater shall be performed during dry weather conditions, except when such activities are necessary to make emergency repairs to utilities, or when approved by the Director of Transportation or his authorized representative.
4. It is the responsibility of the Permittee to prevent sediment, trash, debris, and/or other construction waste from entering the roadway, storm drain system, nearby creeks, or any other bodies of water.
5. County roadways at entrance/exit locations of construction site shall be maintained free of sediment and debris. Permittee shall sweep and/or vacuum County roadway if material tracking is observed. Roadways shall not be washed down with water.
6. The Permittee shall prevent vehicles and equipment from leaking or tracking sediment/debris onto roadways. If leaks cannot be immediately repaired, the vehicle or equipment shall be removed from the project site.
7. Maintenance and fueling of vehicles and equipment shall not result in a release of any pollutants at the work site. Adequate quantities of absorbent spill cleanup materials or spill kit(s) shall be kept at the work site for the duration of the project. The Permittee shall immediately cleanup any spills and/or leaks, and properly dispose of contaminated soil and materials.
8. Vehicle and equipment cleaning or washing shall not be performed within the County right of way except when necessary to control vehicle tracking. Permittee shall obtain approval from the Director of Transportation or his authorized representative prior to use of water for vehicle and equipment cleaning or washing within the County right of way.
9. The use of diesel fuel from petroleum or other fossil fuel as a form oil or solvent is prohibited.
10. The Permittee shall protect gutters, ditches, and storm drain inlets with gravel bag berms, fiber rolls, check dams, or other methods approved by the Director of Transportation or his authorized representative. No such protection measure(s) shall cause an obstruction to the traveling public.
11. Construction materials stored on-site, including but not limited to: concrete, cold-mix asphalt concrete, petroleum products, pressure treated wood, and cement shall be stored in such a manner to prevent contact with stormwater.
12. Concrete equipment shall be cleaned off-site or into a temporary on-site concrete washout containment basin. Concrete washouts shall be properly constructed and maintained to prevent over-filling, leaking, or spillage. All concrete waste shall be disposed of at an appropriate waste disposal facility. Disposal of concrete waste within the County right of way is prohibited.

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13. Rinsing off painting equipment and materials onto the County right of way is prohibited.
14. Natural vegetation is an effective form of erosion control. Only remove vegetation where necessary. Identify and designate area(s) of established vegetation that will remain undisturbed. Prohibit disturbance or damage to preserved vegetation area(s) during construction.
15. Soil disturbing activities shall be avoided during the winter season (October 15th through April 15th). If construction activities are performed during the winter season, the Permittee shall implement all necessary erosion and sediment control measures PRIOR to the start of any soil disturbing activities.
16. All stockpiles of aggregate and/or soil shall be placed a minimum of 50 feet from concentrated flows of stormwater, drainage courses, and storm drain inlets. All stockpiles shall be covered when not in use. If stockpiles cannot be placed the minimum distance from stormwater flows and drainage features due to confined project area, stockpiles shall be either placed in the bed of a dump truck and off-hauled to a secure location, or placed at a secure on-site location, covered, and protected with a temporary sediment control (such as fiber rolls or silt fence) to minimize the exposure to stormwater.
17. During any excavation activities, the Permittee shall immediately notify the Department of Transportation of any unusual discoloration and/or odor on groundwater or excavated material; or if abandoned underground tanks or pipes are encountered.
18. THE PERMITTEES ATTENTION IS DIRECTED TO GENERAL PROVISION NO. 5. The Permittee shall be responsible for ensuring that any and all areas of soil disturbance directly or indirectly created as a result of work authorized by the permit are sufficiently stabilized to prevent future soil erosion and sedimentation issues. Post-construction soil stabilization is a required condition for final inspection approval.

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Contractor Name
Contract # 8CA00000
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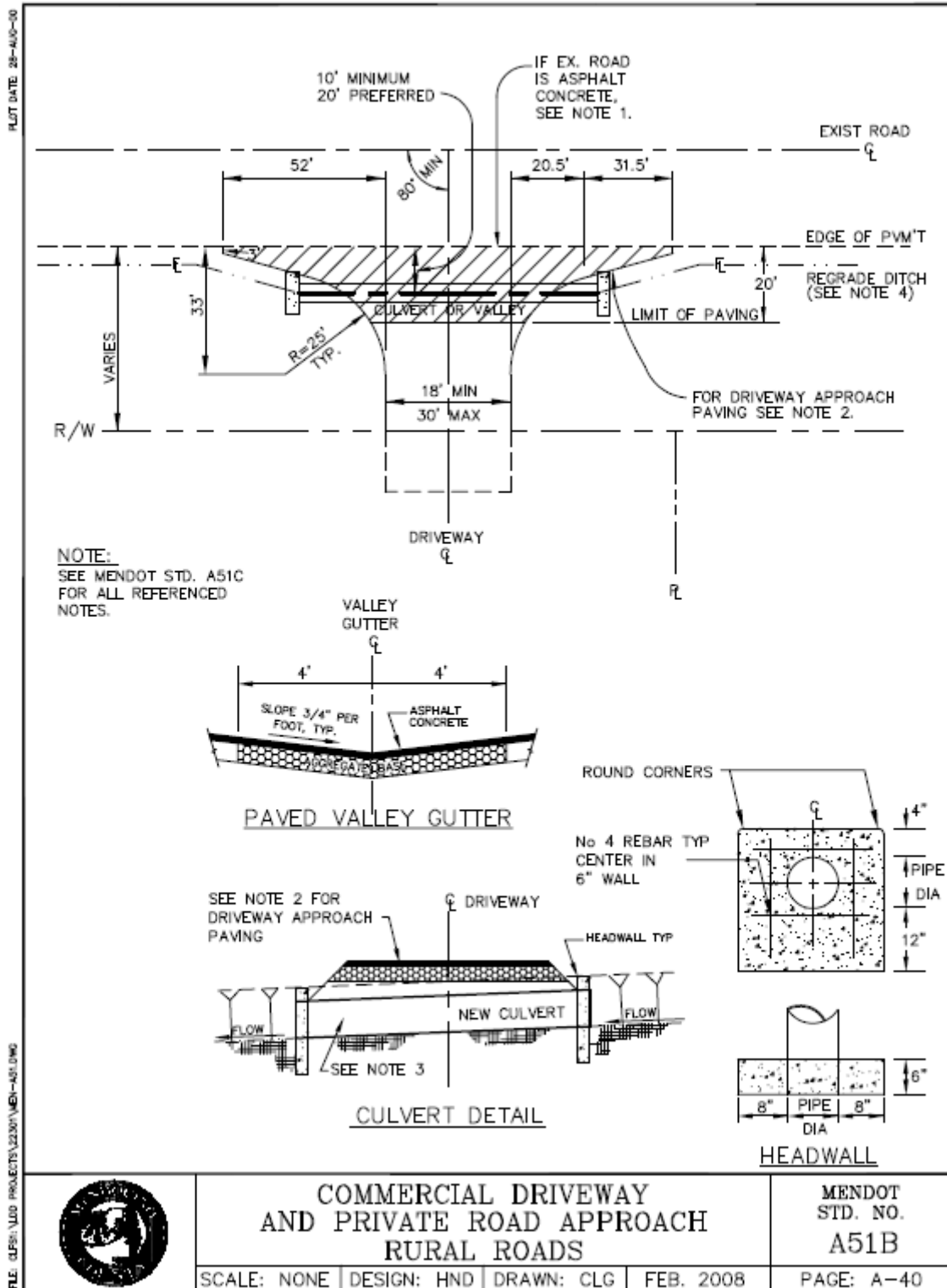


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PLOT DATE: 28-AUG-08

NOTES:

1. NEATLY CUT EXIST. EDGE OF PAVEMENT AND APPLY TACK COAT.
2. RESIDENTIAL DRIVEWAY APPROACH MATERIAL SHALL BE ASPHALT CONCRETE IF ROAD FRONTING DRIVEWAY IS PAVED, PAVING SHALL CONSIST OF 2" A.C. OVER 6" A.B. MINIMUM.
3. COMMERCIAL DRIVEWAY AND PRIVATE ROAD APPROACH MATERIAL SHALL BE ASPHALT CONCRETE IF ROAD FRONTING THE APPROACH IS PAVED. PAVING SHALL CONSIST OF 3" A.C. OVER 8" CL. 2 A.B. MINIMUM.
4. DRIVEWAY APPROACH SURFACING SHALL BE COMPARABLE TO THE SURFACING OF THE ADJACENT ROAD.
AGGREGATE BASE SHALL BE ONE FOOT WIDER THAN THE PAVED WIDTH ON EACH SIDE.
5. CULVERT SHALL BE 12" DIA. MIN. R.C.P. OR HDPE PLASTIC PIPE WITH SMOOTH INTERIOR WALL CONFORMING TO CALTRANS STANDARD SPECIFICATIONS. IN NO CASE SHALL PIPE BE SMALLER THAN UP STREAM CULVERT. LENGTH OF THE CULVERT SHALL BE THAT REQUIRED TO EXTEND ONE FOOT BEYOND THE TOE OF THE DRIVEWAY FILL.
6. REGRADE DITCH ADJACENT TO PROPERTY LINE FOR ENTIRE FRONTAGE OF PROPERTY, IF REQUIRED.
7. CULVERT SHALL BE REQUIRED WHERE THERE IS A ROADSIDE DITCH, UNLESS FLOWLINE OF DITCH IS LESS THAN 3" BELOW EDGE OF PAVEMENT PROFILE. VALLEY GUTTER SHALL BE PROVIDED WHERE CULVERT IS NOT REQUIRED (SEE DETAIL ON STD. NO. A51A)
8. ALL DRIVEWAYS SHALL INTERSECT EXIST STREETS AT 80' MINIMUM, UNLESS OTHERWISE APPROVED BY THE DOT DIRECTOR.
9. SEE MENDOT STD NO. A52 FOR DRIVEWAY/ROAD CONNECTION PROFILE.
10. SEE MENDOT STD NO. A53 FOR SIGHT DISTANCE REQUIREMENTS.
11. AN ENCROACHMENT PERMIT SHALL BE OBTAINED PRIOR TO CONSTRUCTING A DRIVEWAY APPROACH ON A COUNTY ROAD.
12. CULVERT SIZE AND MATERIAL SUBJECT TO THE APPROVAL OF COUNTY

FILE: Q:\FSH\1120 PROJECTS\12201\MSH-A51.DWG



**DRIVEWAY APPROACH
RURAL ROADS – NOTES**

**MENDOT
STD. NO.
A51C**

SCALE: NONE	DESIGN: HND	DRAWN: HND	FEB. 2008	PAGE: A-41
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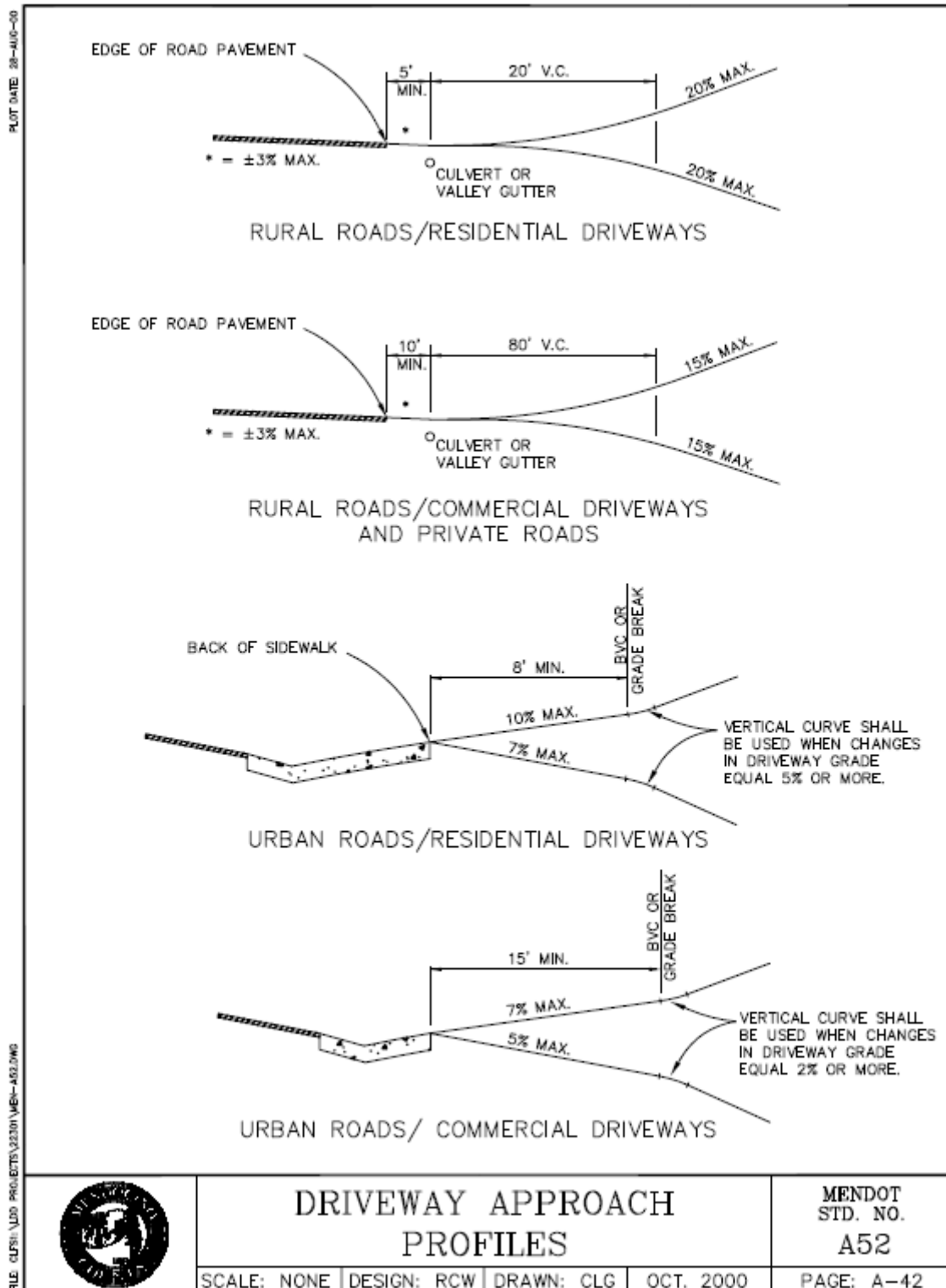


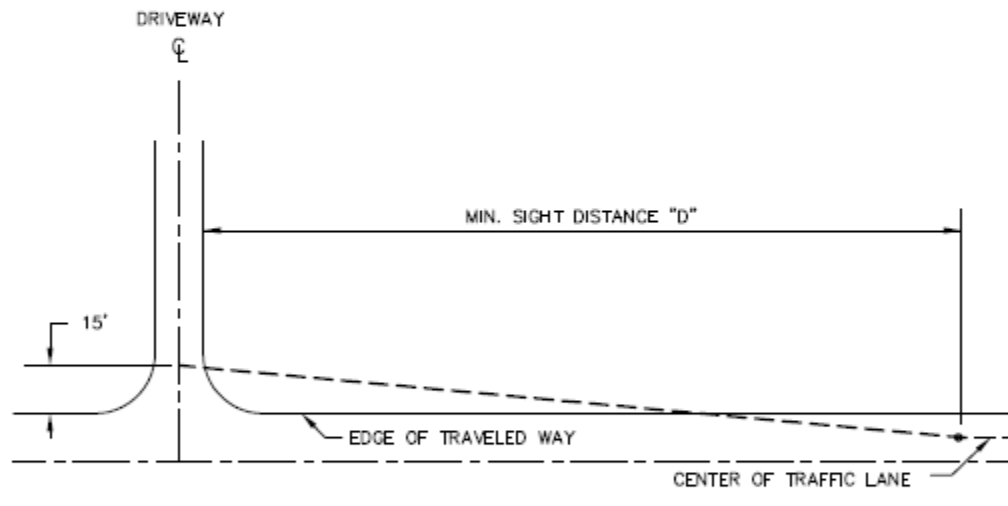
Exhibit A, Attachment 2
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PLOT DATE: 28-AUG-00

NOTE: SIGHT DISTANCE FOR THE CRITICAL APPROACH SHALL MEET THE
 MINIMUM STOPPING SIGHT DISTANCE SET BY THE CALTRANS DESIGN MANUAL

85% PREVAILING SPEED	"D" *
25	150'
30	200'
35	250'
40	300'
45	360'
50	430'
55	500'
60	580'
65	660'

* MAY INCREASE BY 20% ON SUSTAINED DOWNGRADES
 IN EXCESS OF 3% AND OVER 1 MILE IN LENGTH AS WARRANTED.



FILE: C:\P31\100 PROJECTS\22301\MEH-A53.DWG



DRIVEWAY APPROACH MINIMUM STOPPING SIGHT DISTANCE

MENDOT
STD. NO.
A53

SCALE: NONE | DESIGN: HND | DRAWN: HND | FEB. 2008

PAGE: A-43

State of California
Department of Fish and Wildlife

Memorandum

Date: September 13, 2016

To: **Tina Fabula**, Senior Wildlife Biologist
California Department of Forestry and Fire Protection
Jackson Demonstration State Forest
802 N. Main Street
Fort Bragg, CA 95437

From: **Joe Croteau**, Timberland Conservation Program Manager
Northern Region
California Department of Fish and Wildlife
601 Locust Street
Redding, CA 96001



Subject: Marbled Murrelet (*Brachyramphus Marmoratus* - MAMU) Consultation **15-R1-CTP-046**
MAMU for "Road 409" Habitat Area Contiguous with Occupied Habitat in Russian
Gulch State Park in Association with the South Fork Caspar Timber Harvesting Plan
(THP, not yet submitted)

On February 4, 2016, the California Department of Forestry and Fire Protection's (CAL FIRE) Jackson Demonstration State Forest (JDSF) formally requested consultation from the California Department of Fish and Wildlife (CDFW) regarding potential marbled murrelet (*Brachyramphus marmoratus*) habitat along Road 409, on JDSF property and adjacent to Russian Gulch State Park in Mendocino County. This consultation memorandum addresses the full extent of currently assessed potential MAMU habitat along County Road 409, as delineated by JDSF and CDFW in cooperation with the California Department of Parks and Recreation (State Parks), as well as protection measure designed to avoid potential significant impacts associated with the currently proposed South Fork Caspar THP.

The marbled murrelet is a seabird that nests within multistoried canopies on platforms at least 4 inches by 4 inches. MAMU are found in trees with large lateral limbs, epicormic branching, epiphytic growth and/or intertwined branching and are often associated with late seral (over mature) forest and/or tree structure characteristics. The marbled murrelet is listed as State endangered pursuant to Fish and Game Code Section (§) 2050 *et seq.*, Federally threatened pursuant to Section 1531, Title 16, United States Code (16 U.S.C) *et seq.*, and is a sensitive species as defined by Title 14, California Code of Regulations (14 CCR), § 895.1. This consultation is being conducted pursuant to 14 CCR § 919.11, which requires consultation with CDFW.

This request for consultation replaces a prior request received on June 15, 2015 from JDSF. The analysis in the initial request in 2015 suggested that the Road 409 MAMU habitat was contiguous with known occupied habitat within Russian Gulch State Park

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(Russian Gulch). The United States Fish and Wildlife Service (USFWS) Federal Recovery Plan designates Russian Gulch as critical habitat for MAMU. CDFW and JDSF agreed that an initial Consultation, 07-R1-CTP-043 MAMU, improperly addressed the habitat extent adjacent to Russian Gulch and, therefore, this consultation includes a revised habitat extent.

On September 1, 2015, CDFW Environmental Scientist Adam Hutchins met with JDSF Senior Wildlife Biologist, Tina Fabula to discuss potential MAMU habitat connectivity with known occupied habitat in Russian Gulch. In order to determine habitat connectivity between the JDSF stands adjacent to Russian Gulch, JDSF worked with State Parks' staff to assess MAMU habitat suitability along the northern side of Russian Gulch, within approximately 0.25-mile of County Road 409 (Road 409). JDSF concluded, and CDFW concurred, that MAMU habitat on JDSF property and adjacent to Russian Gulch State Park is contiguous with known occupied Russian Gulch MAMU habitat. Figure 1 illustrates the known occupied and contiguous stands as "Assessed MAMU Habitat." For the purposes of this consultation, the contiguous stands adjacent to Road 409 are referred to as, "the Road 409 MAMU Habitat Area."

On February 4, 2016, the consultation request included maps of the proposed habitat delineation and a 300-foot buffer, as well as proposed and existing landings within 1000 feet of Road 409. On March 10, 2016, Mr. Hutchins met with the South Fork Caspar THP Registered Professional Forester (RPF), Kirk O'Dwyer, and Ms. Fabula in order to assess existing and proposed road layouts and landing locations. On March 28, 2016, CDFW again met with the Ms. Fabula to assess the habitat delineation, including the northern and eastern extent of MAMU habitat in the area of the proposed harvest. Assessment of the MAMU habitat on JDSF concluded on June 22, 2016 and includes the full extent of the Road 409 MAMU Habitat Area.

In order to facilitate the assessment of potential impacts, JDSF provided CDFW Geographic Information System (GIS) shapefiles that delineate the following:

- Individual trees with field assessments;
- Proposed extent of habitat boundaries; and
- Proposed appurtenant roads and landings within JDSF.

In addition, JDSF provided GIS shapefiles of suitable habitat within 0.25-mile of Road 409. These data are derived from the habitat assessment conducted in coordination with State Parks. Also included were proposed habitat buffers based on concurring habitat delineations.

In addition to MAMU protection measures listed at the end of this letter, CDFW recommends additional protection measures for general THP operations in **bold** in the body of this letter.

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Site conditions

Mendocino County Road 409 is a County road running along the ridgeline between Russian Gulch State Park and the South Fork Caspar Creek. Road 409 connects State Highway 1 south of Caspar with Little Lake Road east of the town of Mendocino. Road 409 also serves as an alternate route between State Highway 20 and Highway 1. The road travels a fairly level grade through and adjacent to the Road 409 MAMU Habitat Area. In addition to through-vehicle traffic, Road 409 provides access to numerous trails used by recreational bicyclists, hikers, and equestrians on JDSF and State Parks' property.

The Road 409 MAMU Habitat Area consists of multi-aged redwoods and other conifers as well as hardwood species including: Douglas fir (*Pseudotsuga menziesii*), bishop pine (*Pinus muricata*), chinquapin (*Chrysolepis chrysophylla*), and an occasional tanoak (*Notholithocarpus densiflorus*). Portions of the habitat span Road 409 within both JDSF and State Parks' managed lands. Numerous individual trees revealed late seral forest tree characteristics, including reiterative limbs, complex crowns, epicormic growth, epiphytic growth, and a multistory canopy. No fewer than 50 trees on JDSF property immediately adjacent to Russian Gulch exhibited characteristics suitable for marbled murrelet nesting, including a 4 inch by 4 inch platform with adequate protection from the elements. Additionally, State Parks' surveys have detected MAMU to the south-southwest within the Russian Gulch occupied habitat on an ongoing basis, beginning in 1999.

Prior timber harvesting entries north of Road 409 on JDSF built a road network over a relatively flat upper slope. The RPF indicated that the last entry occurred in the early 1970's. Many of these roads are currently used by the public for recreational hiking and biking form a network of interconnected "volunteer" trails along and between the existing legacy roads. To the north, trails lead into the Caspar Creek drainage, and to the south, trails lead into Russian Gulch State Park. JDSF does not maintain or has mapped these trails and does not JDSF maintain the non-appurtenant timber operation roads within the area of Road 409. Regeneration of trees and development of the understory along these roads appear to be the result of site-specific conditions such as hill slope drainage, aspect, slope, canopy cover, and the level of past and present impacts, as well as past THP tree retention.

An existing unmaintained road, 16 to 20 feet wide, intersects Road 409 to the west of the Road 409 Habitat Area and passes within 300 feet of the Road 409 MAMU Habitat Area (see Figures 1 and 2). The road makes a wide curve along its approximately 300 foot length, approximately 225 feet from the Road 409 MAMU Habitat Area at the closest point, through a clearing and then straightens upon its approach to proposed landing 27 (a little over 300 feet from the Road 409 MAMU Habitat Area). Above this section of road, an open overstory extends 80 to 100 feet northeast toward an old landing. To the north of the old landing, small conifers less than 12 inches diameter at breast height (dbh) dominate the understory immediately adjacent to the road. The road is 16 to 20 feet wide

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with conifers leaning over the road. These trees reach up into the lower canopy, but do not comprise a significant portion of the canopy as there are larger trees growing outside the periphery of the road prism.

Approximately 0.5 mile east of the western extent of the habitat area along Road 409, an additional existing unmaintained road intersects Road 409 and continues north, over 300 feet from the Road 409 MAMU Habitat Area. This road accesses a network of existing, unmaintained roads which connect to a road proposed for reconstruction that passes within 300 feet of the northeastern extent of the Road 409 MAMU Habitat Area (see Figures 1 and 3). The existing roads appear to have been up to 20 feet wide in the past. Younger, small diameter conifers, tanoaks, and understory shrubs are encroaching on the edges of the roads which appear impacted by recreational activity. In areas without concentrated recreational traffic, smaller diameter conifers and tanoaks make up a vast majority of the understory and sub-canopy. The dominant canopy within this area is comprised of larger second growth with scattered remnant pre-dominant trees. Vegetation growing on and immediately along these roads extends into the sub-canopy; however, it does not contribute significantly to the canopy structure.

Habitat delineation

On March 28, 2016, Mr. Hutchins and Ms. Fabula inspected the northern extent of the MAMU habitat area within JDSF. JDSF provided individual assessments for trees with potentially suitable MAMU nesting characteristics consistent with the guidance provided by the Pacific Seabird Group¹. Several other trees were identified for potential habitat and added to the individual tree data file. On June 22, 2016, JDSF and CDFW assessed the remaining Road 409 MAMU Habitat Area within JDSF. JDSF modified the MAMU habitat extent data file to reflect changes made in the field at the conclusion of the CDFW field assessment of potential MAMU habitat within 0.25 mile of the proposed South Fork Caspar THP. The revised MAMU habitat extent - as provided by JDSF - is delineated as the Assessed MAMU Habitat (Figure 1), and as the Road 409 MAMU Habitat Area associated with VERY LOW ambient sound and the Road 409 MAMU Habitat Area associated with HIGH ambient sound (Figure 5). CDFW concurs with this delineation of MAMU habitat on JDSF within 0.25 mile of the proposed South Fork Caspar THP.

Proposed activities

The draft, South Fork Caspar THP boundaries were provided to CDFW on July 18, 2016 (see Figure 1, South Fork Caspar THP). The draft boundaries take into account MAMU vegetation modification restrictions as well as considerations discussed throughout Consultation 15-R1-046-MAMU. THP activities, including timber harvesting, tractor and cable yarding, landing construction, road construction, and timber hauling, in addition to other associated activities, are proposed within 0.25 mile (1,320 feet) of the Road 409 MAMU Habitat Area. In total, 103 acres of the South Fork Caspar THP are located within 1,320 feet of the delineated Road 409 MAMU Habitat Area.

¹ Evans Mack, D., W. P. Ritchie, S. K. Nelson, E. Kuo-Harrison, P. Harrison, and T. E. Hamer. 2003. *Methods for Surveying Marbled Murrelets in Forests: A Revised Protocol for Land Management and Research*. Pacific Seabird Group unpublished document available at <http://www.pacificseabirdgroup.org>.

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County Road 409 is a non-appurtenant road which will facilitate THP entry and exit in addition to other uses by vehicles and equipment requiring access to the other THP units (Road 409 is illustrated in Figure 1). THP activities utilizing Road 409 will likely increase the occurrence of large diesel engine and smaller vehicles within and adjacent to the Road 409 MAMU Habitat Area.

Within 300 feet of the Road 409 MAMU Habitat Area

The THP proposes to maintain and use approximately 300 feet of existing road within the 300 foot buffer area between the road junction with Road 409 just over 300 feet west of the western extent of the Road 409 Habitat Area and proposed landing 27 (northwestern portion of the buffer, see Figures 1 and 2). The RPF indicated that vegetation clearing along this stretch of road would need to accommodate a 20 foot wide clearance and up to 50 feet of vertical clearance for transporting yarding equipment.

Within the northeastern portion of the 300 feet buffer, the THP proposes to access proposed landing 63 using an existing unmaintained truck road entering the buffer from the north (see Figures 1 and 3, labeled as "Existing Road to be Reconstructed within 300 feet of Habitat"). The proposed route would utilize segments of the existing road network, taking advantage of roads with either some level of existing impact, or conditions which resulted in minimal establishment of trees contributing to the canopy that would require removal.

The RPF indicated that cable yarding from landing 69 and along the road between landings 69 and 30 would require setting a Tailhold within the outer 50 feet of the habitat area located east of the State Parks managed parcel and north of Road 409. To facilitate cable yarding, cable corridors 10 to 15 feet wide would likely require some level of vegetation modification. Cable corridors would be 150 to 200 feet apart depending on the site specific conditions. Because the specific location is yet to be determined, a "Tailhold Zone" is used to illustrate the proposed area that is approximately 500 feet in length (see Figures 1 and 4).

While Road 409 is a public road, and not an appurtenant road under the Forest Practice Rules, it will be used to access the THP area and transport equipment and timber. Over 1,000 feet of Road 409 passes through the northwestern portion of the Road 409 MAMU Habitat Area and through State Parks property. Road 409 is immediately adjacent to the eastern extent of Road 409 Habitat Area where MAMU habitat approaches the road.

From 300 feet to 1,320 feet of the Road 409 MAMU Habitat Area

In addition to the landings listed in Table 1 below, the THP proposes road reconstruction and new road construction between 300 feet and 1,320 feet from the Road 409 MAMU Habitat Area (see Figure 1 for an illustration of landings, roads, and THP boundaries within 1,320 feet of the Road 409 MAMU Habitat Area).

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<i>Table 1. Proposed THP Landings within 1,320 feet of the Road 409 MAMU Habitat Area (see Figure 1 for landing locations)</i>	
Distance from MAMU Habitat Area (feet)	Proposed THP Landing No.s
300-500	27, 63, 70, 71, & 95
500-825	30, 64, 65, 68, 69, 93, & 96
825-1,320	62, 66, 89, 90, 91, 92, & 94

Potential impacts

CDFW analyzed potential impacts from proposed activities' modification of vegetation within 300 feet of the un-even aged, multi-story canopy stands in which the identified habitat trees are located. Additionally, CDFW analyzed the potential auditory and visual disturbance² assesses potential impacts specific to the proposed project and associated activities.

Analysis of vegetation modification within 300 feet of the Road 409 MAMU Habitat Area

CDFW assessed the proposed use and maintenance of an existing road across the road (north) of the small JDSF parcel south of Road 409 (see Figure 2 for details). Under current conditions, removal of vegetation between Road 409 and the old landing will not result in structural change to the forest canopy. Between the old landing and landing L-27, removal of the trees with crowns overhanging the road and those that intermingle with the lower canopy growing outside the road prism would not significantly modify the canopy or expose trees to wind-throw or impact the multistory canopy within the Road 409 MAMU Habitat Area. As proposed, vegetation brushing, maintenance, and use of approximately 300 feet of road, which leads to landing 27 and passes no closer than 225 feet from the Road 409 MAMU Habitat Area will not significantly modify existing canopy characteristics of stands that are located within 300 feet of the Road 409 MAMU Habitat Area.

CDFW assessed proposed road layouts intended to join two existing roads (see Figures 1 and 3). For mapping purposes, CDFW's preferred road layout is illustrated as "Existing Road to be Reconstructed within 300 feet of Habitat" as depicted on consultation maps. As discussed above, numerous intersecting roads provide a network through the area between the existing road proposed for re-construction and Road 409. During the field assessment, CDFW and JDSF identified existing road lengths which could: 1) facilitate a feasible route and would minimize the removal of trees (no trees over 12 inches diameter at breast height (dbh) to be removed), 2) avoid significantly altering canopy structure above the sub-canopy and 3) avoid new road construction all together. The proposed route was field-verified as feasible by the RPF. While the proposed road re-construction opens approximately 140 feet of road within 300 feet of the Road 409 MAMU Habitat Area, using the already established roads will ultimately require less vegetation removal

² Defined by USFWS Technical Guidance: *Estimating the effects of auditory and visual disturbance to northern spotted owls and marbled murrelet in northwestern California*. July 31, 2006

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and will likely result in less than significant impacts to canopy structure located within 300 feet of the Road 409 MAMU Habitat Area. **In order to avoid the potential impacts to canopy structure within 300 feet of the Road 409 MAMU Habitat Area, CDFW recommends the re-construction of approximately 140 feet of road avoids removal of any tree over 12 inches dbh.**

CDFW assessed potential impacts associated with potential Tailholds and cable corridors for cable yarding for proposed landing 69 and the road segment immediately adjacent. **In order to design Tailhold placement in a manner that will minimize potential impacts and avoid adverse significant impacts, CDFW recommends CDFW staff approve the location of each Tailhold placement and vegetation clearance within 300 feet of the Road 409 MAMU Habitat Area (see "Tailhold Zone (50 feet) in Figures 1 and 4). In addition, CDFW recommends that no Tailholds and/or cable corridors shall occur within 300 feet of the Road 409 MAMU Habitat Area that is outside the Tailhold zone.** Cautious site selection of Tailholds in collaboration with CDFW and the placement of cable corridors within the Tailhold zone will likely avoid significant impacts to marbled murrelet habitat.

Visual and auditory disturbance

The primary source for pre-project noises exceeding ambient levels includes activities associated with the public use of Road 409. Large diesel trucks hauling multi-axle trailers loaded with logs, rock, water, and/or waste materials utilize Road 409. The road travels a fairly level grade through and adjacent to the Road 409 MAMU Habitat Area, where engine braking or throttling engines at high RPM in low gears is not required in order to maintain safe travelling speeds. The posted speed limit east of the paved portion of road is 35 miles per hour.

In addition to through vehicle traffic, Road 409 provides access to numerous trails used by recreational bicyclists, hikers, and equestrians within JDSF and State Parks. Users of the volunteer trail network along the northern side of Road 409 in addition to the through traffic on Road 409 present a level of regular visual disturbance. Non-motor vehicle disturbances are concentrated along established pathways adjacent to Road 409 and through portions of the Road 409 MAMU Habitat Area, within both JDSF and State Parks. Non-motorized, recreational traffic have passed through the occupied MAMU habitat area within Russian Gulch since before the initial detections and occupancy determination in 1999. It is reasonable to assume MAMU occupying these stands have some habituation to potential visual and auditory disturbance from recreational activities in the area.

On April 26, 2016, JDSF provided CDFW with measurements of existing pre-project sound levels collected on April 14, 2016 from various locations within the Road 409 MAMU Habitat Area. This sampling of sporadic sound is summarized in Table 2 below. Additionally, JDSF provided the associated action-generated sounds³ of assumed Road 409 traffic use associated with the proposed THP, which includes sound generation within

³ Defined by USFWS Technical Guidance: *Estimating the effects of auditory and visual disturbance to northern spotted owls and marbled murrelet in northwestern California*. July 31, 2006

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0.25 mile of the Road 409 MAMU Habitat Area. Standardized decibel (dB) values and a relative sound level followed the USFWS 2006 Technical Guidance: NATURAL AMBIENT (≤ 50 dB); VERY LOW (51-60dB); LOW (61-70dB); MODERATE (71-80dB); HIGH (81-90dB); VERY HIGH (91-100dB); and EXTREME (≥ 101 dB).

Table 2. Summary of the measured pre-project action generated sound, provided by CAL FIRE

Location (Relative to Road 409)	Vehicles	Measured dBs	Sound Level as Defined by USFWS Technical Guidance
Approx. 8 feet	automobile	60	VERY LOW
	street motorcycle		
Approx. 300 feet north (in MAMU habitat)	automobile	40	NATURAL AMBIENT/ VERY LOW
	large sport utility with trailer	50	
Approx. 700 feet north (extent of MAMU habitat to north)	automobiles	20	NATURAL AMBIENT

Other activities potentially occurring along Road 409 and associated with recreational use may generate additional ambient noise.

Under Consultation 15-R1-CTP-046-MAMU, the ambient sound levels along Road 409 and activities associated with timber operations shall reference the categories as defined on page 5 of the USFWS 2006 Technical Guidance. Based on this guidance, presumed sound levels along Road 409 have the potential of reaching the HIGH (81-90dB) sound level due to the occasional passage of large trucks and construction equipment (see Figure 5, "Road 409 Corridor"). Sound levels associated with these types of vehicles in excess of the HIGH sound level are unlikely due to the flat grade and improved road surface as well as the relatively low vehicle speeds.

As provided in the pre-consultation letter dated April 26, 2016, pre-project ambient noise levels from Road 409 were measured within the "NATURAL AMBIENT" (≤ 50 dB) sound level. However, it is reasonable to assume that sporadic higher sound levels will occur within 300 feet of the road during heavier traffic. CDFW concurs with the CAL FIRE assessment that sound level for the northeastern portion of the Road 409 MAMU Habitat Area located within and adjacent to the State Parks property, and occurring 300 feet or more from Road 409, should be considered NATURAL AMBIENT (40-50dB) with sporadic VERY LOW (51-60dB) (see Figure 5, illustrated as "NE State Parks Habitat").

For the purposes of this consultation, CDFW also assessed natural topographic, attenuators of sound travel. Existing landings 90, 91, 92, and 94 are located on the northerly aspect of the next drainage to the north of the Road 409 MAMU Habitat Area. Auditory restriction zones will follow the ridgeline as delineated in Figure 5.

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Vehicle use within and adjacent to Road 409 MAMU Habitat Area

CDFW assessed the use of large diesel engine and smaller vehicle traffic associated with the proposed THP within and adjacent to the Road 409 MAMU Habitat Area along Road 409 and the appurtenant road system. THP related vehicle traffic (above current Road 409 volumes and outside the current periods) within 1,320 feet of the habitat area may potentially impact MAMU. Vehicle speed restrictions during the MAMU breeding season are warranted which are consistent with other occupied and presumed occupied MAMU habitat overlapping or adjacent to public or mainline roads.

MAMU protection measures

In order to minimize disturbances and retain and buffer the Road 409 MAMU Habitat Area which includes contiguous habitat with occupied MAMU habitat in Russian Gulch State Park, include the following protection measures in the proposed THP:

Year-round vegetation modification restrictions

1. No vegetation modification within 300 feet of the delineated Road 409 MAMU Habitat Area shall occur, aside from the following exceptions:
 - a. Approximately 300 feet of road brushing and maintenance from Road 409 to landing 27 (see Figure 2);
 - b. Approximately 140 feet of road reconstruction along the existing road network between landing 65 and 63 (see Figure 3); and
 - c. Tailhold placement and cabling corridors shall only occur within the delineated "Tailhold Zone" as approved by CDFW (see Figure 4) within 300 feet of the Road 409 MAMU Habitat Area. CDFW shall assess each tailhold placement and related clearance after its delineation and before its use. In the event that CDFW disapproves of a Tailhold placement, a new location may be proposed for CDFW approval or disapproval. As such, cable corridor placement from the Tailholds within the "Tailhold Zone" shall adhere to the following requirements:
 - i. The number of cabling corridors shall be kept to the minimum required in order to yard to landing 69 and to a location along the associated road segment;
 - ii. Cable corridors shall not occur within 250 feet of the Road 409 MAMU Habitat Area; and
 - iii. After the RPF locates the proposed Tailhold sites, CDFW shall be notified to perform the site assessment;

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- iv. All Tailhold placements within the "Tailhold Zone" shall have CDFW approval prior to any vegetation modification.

Nesting season VERY LOW ambient sound area auditory restrictions
(NE State Parks Habitat)

2. The following noise restrictions shall be in place surrounding the northeastern portion of the Road 409 MAMU Habitat Area (see Figure 5) during the MAMU nesting season (March 24 to September 15):
- a. THP activity generated sounds shall not exceed the MODERATE (>80 dB) sound level up to 330 feet from the northeastern portion of the Road 409 MAMU Habitat Area;

HIGH noise restriction areas – Figure 5.

Inside the 330 foot (inside the black/white checked line) Buffer Area:

It is OK to do the following actions during the MAMU season:

- Flag roads and landings;
- Flag cable corridors;

It is **NOT OK** to do the following during the MAMU season:

- Haul logs;
- Use chainsaws;
- Fell large trees (>30 in. dbh);
- Use yarder whistle;
- Use Jake brake;
- Use a chipper machine;
- Use large chainsaws;
- Drive vehicles including pickups;
- Re-build roads with dump trucks, dozers, road graders;
- Build new roads or landings with dozers, road graders and dump trucks.

- b. THP activity generated sounds shall not exceed the HIGH (>90 dB) sound level up to 825 feet from the northeastern portion of the Road 409 MAMU Habitat Area; and
-

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VERY HIGH noise restriction area

In the **Blue Buffer Area:**

It is OK to do the following actions during the MAMU season:

- Haul logs;
- Use chainsaws;
- Drive vehicles including pickups;
- Re-build roads with dump trucks, dozers, road graders;
- Build new roads or landings with dozers, road graders and dump trucks.

It is NOT OK to do the following during the MAMU season:

- Fell large trees (>30 in. dbh);
- Use yarder whistle;
- Use Jake brake;
- Use a chipper machine.

- c. THP activity generated sounds shall not exceed the VERY HIGH (>100 dB) sound level up to 1320 feet from the northeastern portion of the Road 409 MAMU Habitat Area.

EXTREME noise restriction areas

In the **Green Buffer Area:**

It is OK to do the following actions during the MAMU season:

- Fell large trees (>30 in. dbh);
- Use yarder whistle;
- Use Jake brake;
- Haul logs;
- Use chainsaws;
- Drive vehicles, including pickups;
- Re-build roads with dump trucks, dozers, road graders specifically:
 - Rebuild road from Road 409 heading to landing 27;
 - Rebuild road that goes from Road 409 to landing 30 and then to landing 66;
- Build new roads with dozers, road graders and dump trucks.

It is NOT OK to do the following during the MAMU season:

- Helicopter Yarding.
-

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- iv. All Tailhold placements within the "Tailhold Zone" shall have CDFW approval prior to any vegetation modification.

Nesting season VERY LOW ambient sound area auditory restrictions
(NE State Parks Habitat)

2. The following noise restrictions shall be in place surrounding the northeastern portion of the Road 409 MAMU Habitat Area (see Figure 5) during the MAMU nesting season (March 24 to September 15):
- a. THP activity generated sounds shall not exceed the MODERATE (>80 dB) sound level up to 330 feet from the northeastern portion of the Road 409 MAMU Habitat Area;

HIGH noise restriction areas – Figure 5.

Inside the 330 foot (inside the black/white checked line) Buffer Area:

It is OK to do the following actions during the MAMU season:

- Flag roads and landings;
- Flag cable corridors;

It is NOT OK to do the following during the MAMU season:

- Haul logs;
- Use chainsaws;
- Fell large trees (>30 in. dbh);
- Use yarder whistle;
- Use Jake brake;
- Use a chipper machine;
- Use large chainsaws;
- Drive vehicles including pickups;
- Re-build roads with dump trucks, dozers, road graders;
- Build new roads or landings with dozers, road graders and dump trucks.

- b. THP activity generated sounds shall not exceed the HIGH (>90 dB) sound level up to 825 feet from the northeastern portion of the Road 409 MAMU Habitat Area; and
-

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VERY HIGH noise restriction area

In the **Blue Buffer Area:**

It is OK to do the following actions during the MAMU season:

- Haul logs;
- Use chainsaws;
- Drive vehicles including pickups;
- Re-build roads with dump trucks, dozers, road graders;
- Build new roads or landings with dozers, road graders and dump trucks.

It is NOT OK to do the following during the MAMU season:

- Fell large trees (>30 in. dbh);
- Use yarder whistle;
- Use Jake brake;
- Use a chipper machine.

- c. THP activity generated sounds shall not exceed the VERY HIGH (>100 dB) sound level up to 1320 feet from the northeastern portion of the Road 409 MAMU Habitat Area.

EXTREME noise restriction areas

In the **Green Buffer Area:**

It is OK to do the following actions during the MAMU season:

- Fell large trees (>30 in. dbh);
- Use yarder whistle;
- Use Jake brake;
- Haul logs;
- Use chainsaws;
- Drive vehicles, including pickups;
- Re-build roads with dump trucks, dozers, road graders specifically:
 - Rebuild road from Road 409 heading to landing 27;
 - Rebuild road that goes from Road 409 to landing 30 and then to landing 66;
- Build new roads with dozers, road graders and dump trucks.

It is NOT OK to do the following during the MAMU season:

- Helicopter Yarding.
-

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Nesting season HIGH ambient sound area auditory restrictions (Road 409 Corridor)

3. The following noise restrictions shall be in place within 500 feet of the Road 409 MAMU Habitat Area located along the Road 409 corridor (see Figure 5) during the MAMU nesting season (March 24 to September 15):
 - a. THP activity generated sound shall not exceed the HIGH (> 90 dB) sound level within 165 feet of the Road 409 MAMU Habitat Area; and

VERY HIGH noise restriction areas

Between the **MAMU habitat area** and the **Dashed Red Line**:

It is OK to do the following actions during the MAMU season:

- Haul logs;
- Use chainsaws;
- Drive vehicles including pickups;
- Re-build roads with dump trucks, dozers, road graders;
- Build new roads or landings with dozers, road graders and dump trucks.

It is NOT OK to do the following during the MAMU season:

- Fell large trees (>30 in. dbh);
- Use yarder whistle;
- Use Jake brake;
- Use a chipper machine.

- b. THP activity generated sound shall not exceed the VERY HIGH (>100 dB) sound level within 500 feet of the Road 409 MAMU Habitat Area.

EXTREME noise restriction areas

Between **red dashed line and red cross-hatched line**/ between 165 feet and 500 feet buffers (near Rd 409):

It is OK to do the following actions during the MAMU season:

- Fell large trees (>30 in. dbh);
 - Use yarder whistle;
 - Use Jake brake;
 - Haul logs;
 - Use chainsaws;
 - Drive vehicles, including pickups;
 - Re-build roads with dump trucks, dozers, road graders, specifically:
-

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- Rebuild road from Road 409 heading to landing 27;
- Rebuild road that goes from Road 409 to landing 30 and then to landing 66;
- Build new roads with dozers, road graders and dump trucks.

It is NOT OK to do the following during the MAMU season:

- Helicopter yarding.

4. Along Road 409 and all appurtenant roads within 500 feet of the Road 409 MAMU Habitat Area (see Figure 1), THP related vehicles shall adhere to the following during the MAMU nesting season (March 24 to September 15):
 - a. Do not exceed 15 miles per hour within 2 hours prior to dawn and 2 hours after dusk;
 - b. Restrict stopping to the minimum required in order to safely use Road 409 and connecting appurtenant roads; and
 - c. Prohibit log load band tightening.

Year-round protection measures:

5. Workers shall not leave food waste or personal trash within 1,320 feet of the Road 409 MAMU Habitat Area.

If the above protection measures are included verbatim, then the THP will not likely result in "take" or adversely affect the marbled murrelet for activities associated with the proposed South Fork Caspar THP within and adjacent to the assessed Road 409 MAMU Habitat Area and where it is contiguous with the occupied Russian Gulch State Park occupied habitat. If conditions or operations change in or near the Road 409 MAMU Habitat Area a reconsultation will be required.

Please direct questions or comments regarding this memorandum to Environmental Scientist Adam Hutchins at (707) 964-1980 or by e-mail adam.hutchins@wildlife.ca.gov.

Attachments: See Pages 15-19

ecs: See Page 14

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ec: Jackson Demonstration State Forest
Tina Fabula and Kirk O'Dwyer
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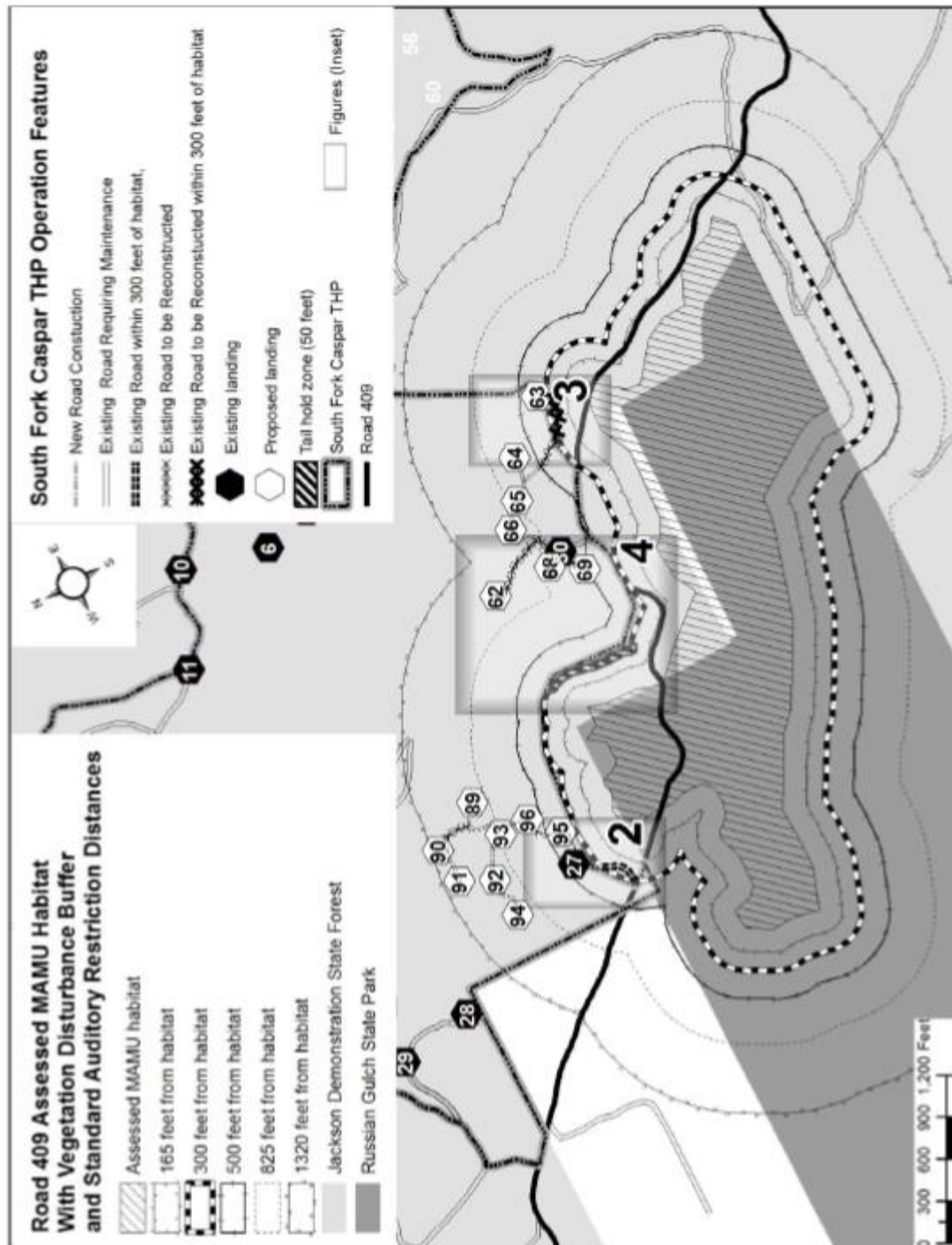


Figure 1. Road 409 MAMU Habitat Area (NOTE: All figures are available in color upon request).

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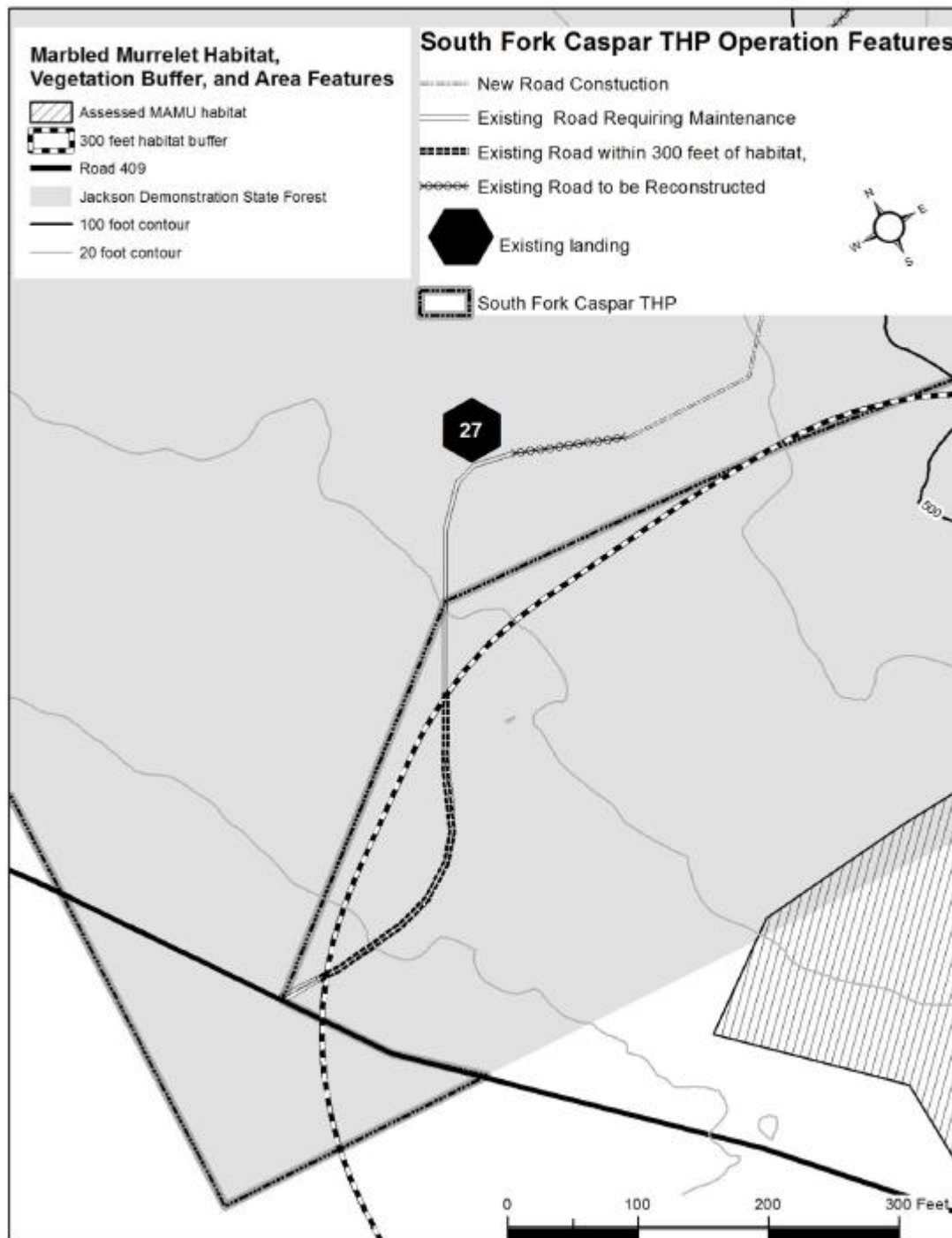


Figure 2. Proposed road re-construction between western Road 409 intersection and landing 27.

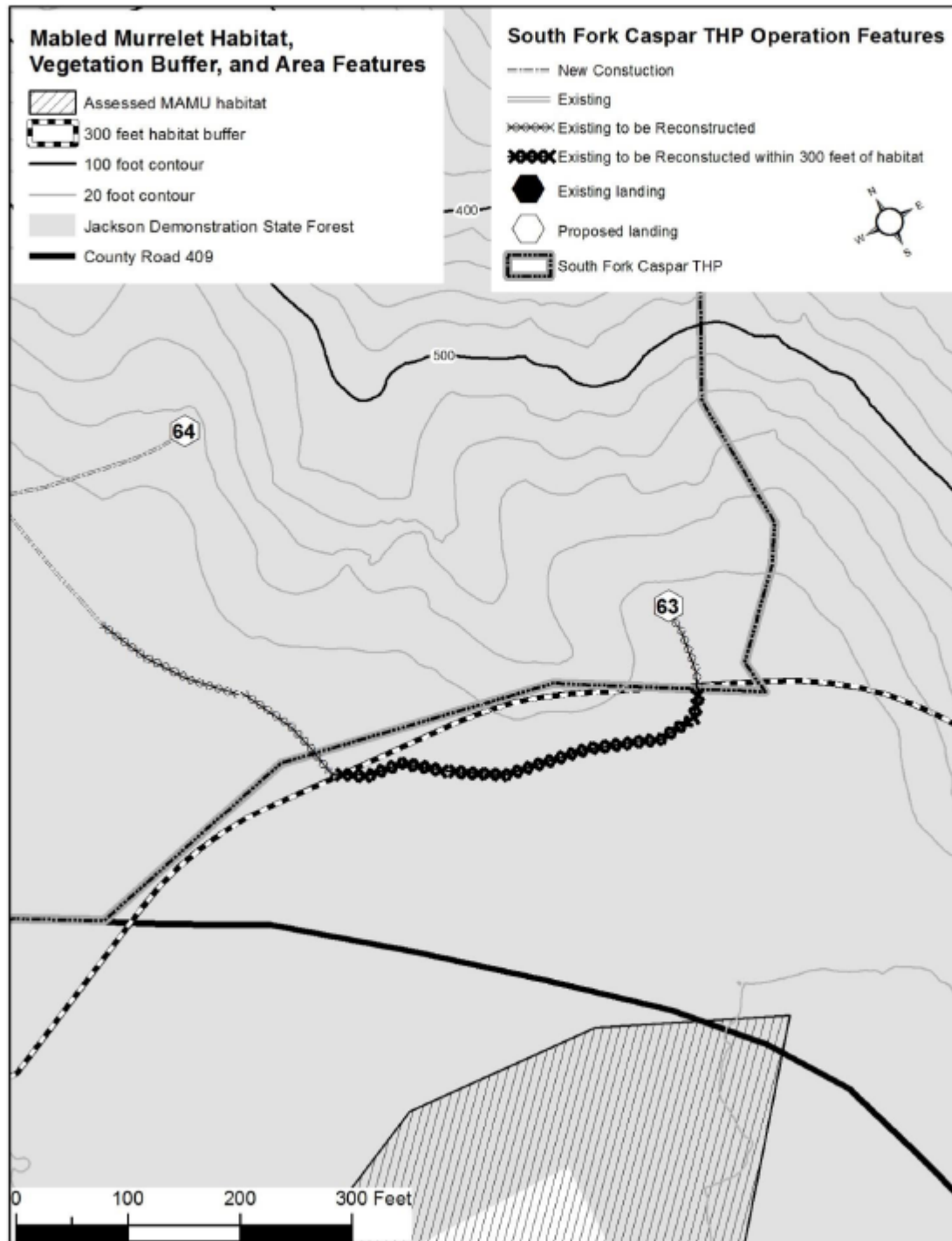
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Figure 3. Proposed road re-construction within 300 feet of the Road 409 Habitat Area.

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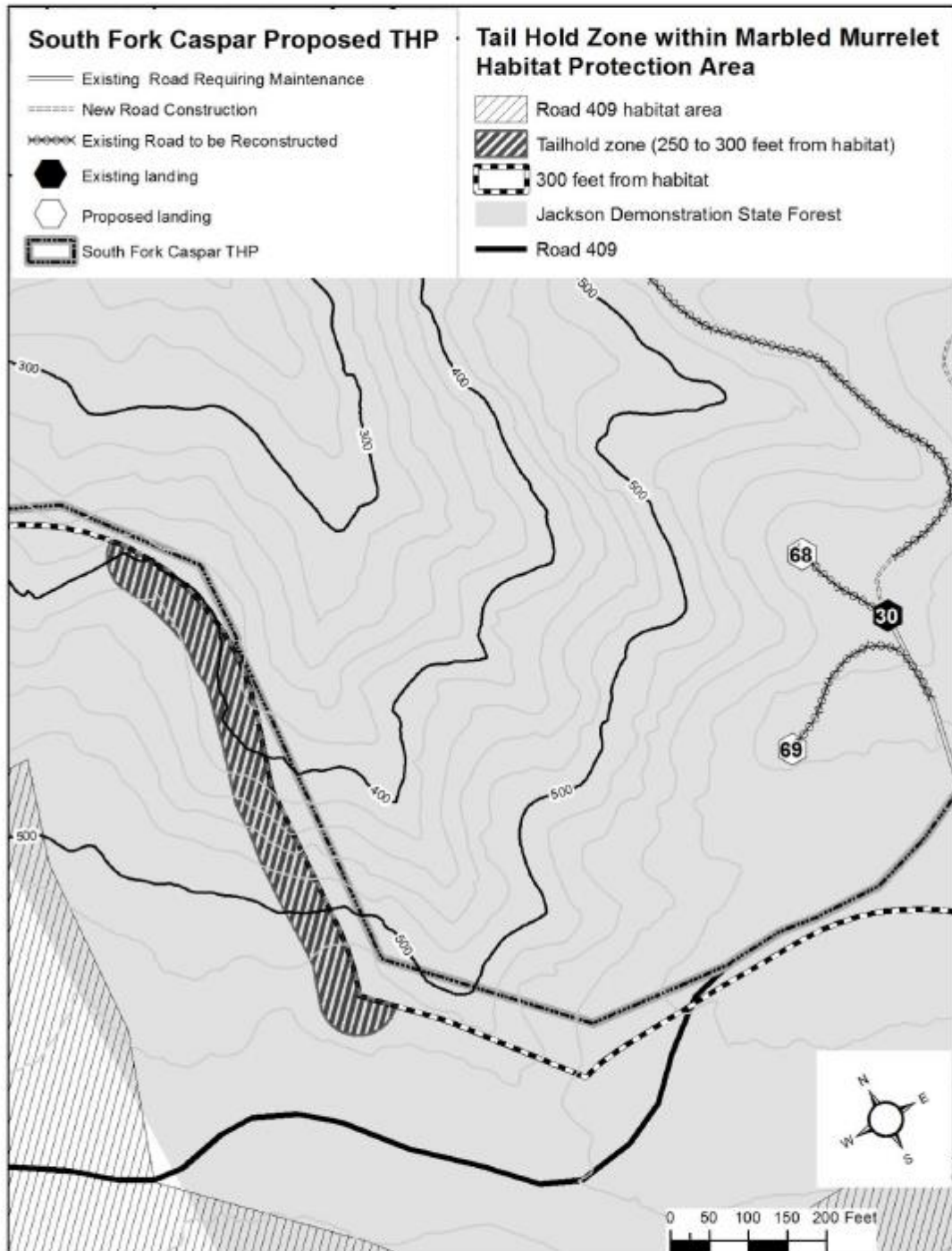


Figure 4. The Tailhold Zone within the Road 409 MAMU Habitat Area vegetation modification buffer and proposed landings and roads.

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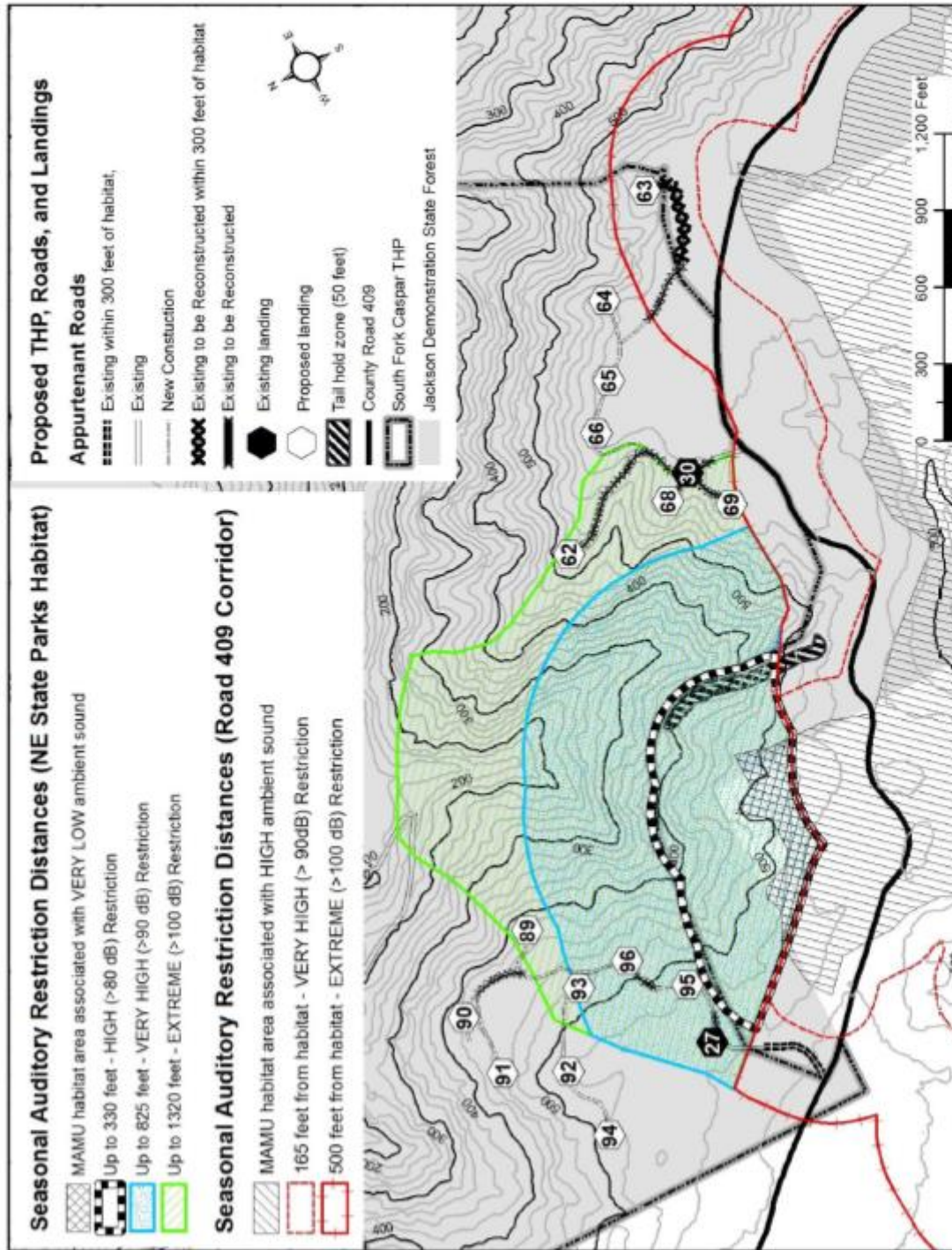


Figure 5. South Fork Caspar THP auditory restrictions for Road 409 MAMU Habitat Area.

REPORTING AND OPERATING COSTS FORM

Page ____ of ____ for ACTIVITY: _____ AREA or UNIT: _____

PART 1. EQUIPMENT

<u>Equipment Type</u>	<u>No. of Hours Worked</u>	<u>Rate per Hour</u>	Check if * <u>With Oper.</u>	<u>Total Cost</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

PART 2. LABOR

<u>Labor Type</u>	<u>No. of Hours Worked</u>		<u>Rate per Hour *</u>		<u>Total Cost</u>
	<u>Straight</u>	<u>OT</u>	<u>Straight</u>	<u>OT</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

* Labor rates, whether with equipment rates or listed separately, must include state comp insurance, benefits, and other employer costs.

PART 3. MATERIALS, SERVICES, OVERHEAD, ETC.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Cost/Unit</u>	<u>Total Cost</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Attach additional information as appropriate.

[illegible]

BUDGET DETAIL AND PAYMENT PROVISIONS**1. BID DEPOSIT/ADVANCE PAYMENT.**

The deposit of \$90,000 submitted with the bid for this timber shall be held by the STATE as a guarantee that all periodic payments as called for by the Timber Sale Officer shall be made in advance of cutting of timber referable thereto and for the satisfactory performance by the PURCHASER of all the terms and conditions hereof. If the PURCHASER's bid exceeds the advertised minimum rate by 25 percent, the PURCHASER shall increase the bid deposit to 2.5 percent of the estimated total value of the bid prior to STATE approval of this Agreement. This deposit shall be applied by the STATE to any final payments called for by the Timber Sale Officer upon completion of faithful performance by the PURCHASER. No cutting shall proceed on any trees for which payments have not been made. During active operations, the Timber Sale Officer shall establish a payment schedule based on the estimated rate of cutting. Periodic payments will be required in increments of not less than the value of two weeks of cutting, and shall be based on three-week cutting projections provided to the STATE by the PURCHASER. Cutting projections shall be updated each week by the PURCHASER at the time weekly falling scale is reported, as described in Section 11.p of this Agreement. Payments shall be made when requested by the STATE. If payment is not received by the date requested, the STATE may suspend the PURCHASER's operations until payment is received.

If legal action by a third party prevents the initiation of timber harvesting activities within 90 days of STATE approval of this Agreement, the PURCHASER may request and the STATE will approve the termination of the Agreement without prejudice, and the STATE will return the PURCHASER's performance security and bid deposit(s), not including any accrued interest. The PURCHASER's written request for termination must be submitted within the 90-day period and must reference this condition of the Agreement.

2. Payment Schedule

A. For final payment, all merchantable material in accordance with the terms and conditions stated herein, and upon receipt of the Timber Sale Cutting Report, the PURCHASER agrees to compensate the STATE in accordance with the rates specified as follows based on 100% scale pursuant to the Revised Scribner Log Rule:

1)

Merchantable Species Value	Rate per Mbf
Redwood	\$ [/mbf]
Douglas - fir	\$ 100
Grand fir, Western Hemlock	\$ 100

2) Hardwoods removed from the sale area shall be paid for at the rate of \$0.20 per ton

3) Cull logs, pine or conifer species not merchantable shall be paid for at the rate of \$1.25 per ton, or at \$5.00 per thousand board feet gross scale, if scaled.

4) The final payment shall be reduced by \$270.00 per mile of watered road for each day that water is delivered by the PURCHASER from alternative sources at the direction of the Timber Sale Officer.

B. The contractor shall submit periodic advanced stumpage payments based on the estimated three-week rate of cutting. Each payment shall be made for not less than two weeks of cutting. Cutting projections shall be updated each week by the PURCHASER at the time weekly falling scale is reported. Each payment shall contain the following information

- 1) The agreement number (8CA00000).
- 2) The time-period and estimated volume which the payment covers.
- 3) Timber Sale name.
- 4) Certified Small Business or DVBE # if applicable.

C. Payments shall be made to:

California Department of Forestry and Fire Protection
Jackson Demonstration State Forest
RE: Porter 2018 Timber Sale
802 North Main Street
Fort Bragg, CA 95437

3. Yield Tax Payment.

- A. The PURCHASER shall be solely responsible for filing reports with the State Board of Equalization and payment of the timber yield tax levied on timber cut under this Agreement as provided by the Z'Berg-Warren-Keene-Collier Forest Taxation Reform Act, Statutes of 1976, Chapter 176. The PURCHASER'S yield tax payments shall not be credited in any way for timber cut or other obligations of this Agreement.

The PURCHASER further agrees to furnish the STATE copies of the Timber Yield Tax calculations and reporting forms submitted to the Board of Equalization for timber harvested pursuant to this Agreement. Yield tax information shall be provided no later than January 31 for timber harvested during the previous calendar year.

- B. By signing this contract, the PURCHASER swears under penalty of perjury that no more than one final unappealable finding of contempt of court by a federal court has been issued against the PURCHASER within the immediately preceding two-year period because of the PURCHASER'S failure to comply with an order of a federal court which orders compliance with an order of the National Labor Relations Board.

SPECIAL TERMS AND CONDITIONS**1. Excise Tax**

The State of California is exempt from federal excise taxes, and no payment will be made for any taxes levied on employees' wages. The State will pay for any applicable State of California or local sales or use taxes on the services rendered or equipment or parts supplied pursuant to this Agreement. California may pay any applicable sales and use tax imposed by another state.

2. Settlement of Disputes

In the event of a dispute, within ten (10) days of discovery of the problem contractor shall file a "Notice of Dispute" with:

Department of Forestry and Fire Protection
Attention: Acquisitions Manager
P.O. Box 944246
Sacramento, CA 94244-2460

Within ten (10) days of CAL FIRE receiving contractor's notice, the contracts manager or designee shall advise contractor of the findings and recommend a method to resolve the dispute. Decision of the contracts manager or designee shall be final.

In the event of a dispute, the language contained within this Agreement shall prevail over any other language including that of the bid proposal.

3. Right to Terminate (SCM 7.85)

The State reserves the right to terminate this agreement immediately if any of the performance criteria are not met. (Refer to GTC, Exhibit C, Item 7. Termination for Cause)

Contractor may submit a written request to terminate this agreement only if the State should substantially fail to perform its responsibilities as provided herein.

4. Potential Subcontractors

Nothing contained in this Agreement or otherwise, shall create any contractual relation between the STATE and any subcontractors, and no subcontract shall relieve the PURCHASER of his responsibilities and obligations hereunder. The PURCHASER agrees to be as fully responsible to the State for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the PURCHASER. The PURCHASER'S obligation to pay its subcontractors is an independent obligation from the STATE'S obligation to make payments to the Contractor. As a result, the STATE shall have no obligation to pay or to enforce the payment of any moneys to any subcontractor.

5. Evaluation of Contractor

Performance of the Contractor under this Agreement will be evaluated. The evaluation shall be prepared on Contract/Contractor Evaluation Sheet (STD 4), and maintained in the Agreement file. For consultant agreements, a copy of the evaluation will be sent to the Department of General Services, Office of Legal Services, if it is negative and over \$5,000.

6. Agency Liability

The Contractor warrants by execution of this Agreement, that no person or selling agency has been employed or retained to solicit or secure this Agreement upon agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the State shall, in addition to other remedies provided by law, have the right to annul this Agreement without liability, paying only for the value of the work actually performed, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

7. Force Majeure

Neither party shall be liable to the other for any delay in or failure of performance, nor shall any such delay in or failures of performance constitute default, if such delay or failure is caused by "Force Majeure." As used in this section, "Force Majeure" is defined as follows: Acts of war and acts of God such as earthquakes, floods, and other natural disasters such that performance is impossible.

8. Contractor Name Change

Contractor shall provide a written notice to the State at least thirty (30) days prior to any changes to the Contractor's current legal name.

ADDITIONAL PROVISIONS**1. Insurance Requirements.****A. General Provisions Applying to All Policies.**

- 1) Primary Clause - Any required insurance contained in this contract shall be primary, and not excess or contributory, to any other insurance carried by the State.
- 2) Endorsements - Any required endorsements requested by the State must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- 3) The Department will not provide for nor compensate Contractor for any insurance premiums or costs for any type or amount of insurance.
- 4) When Contractor submits a signed contract to the State, Contractor shall furnish to the State a certificate of insurance stating that all required insurance is in effect for the Contractor.

B. General and Commercial Liability Insurance.

Contractor shall provide commercial general liability insurance of not less than \$1,000,000 per occurrence for bodily injury and property damage liability combined in effect for the Contractor.

The certificate of insurance will include provisions 1, and 2, in their entirety:

- 2) That the insurer will not cancel the insured's coverage without 30 days prior written notice to the State.
- 3) That the State of California, its officers, agents, employees, and servants are included as additional insured, but only insofar as the operations under this contract are concerned.

Contractor agrees that the bodily injury liability insurance herein provided for shall be in effect at all times during the term of this contract. In the event said insurance coverage expires at any time or times during the term of this contract, Contractor agrees to provide at least 30 days prior to said expiration date, a new certificate of insurance evidencing insurance coverage as provided for herein for not less than the remainder of the term of the contract, or for a period of not less than one year. New certificates of insurance are subject to the approval of the Department of General Services, and Contractor agrees that no work or services shall be performed prior to the giving of such approval. In the event the Contractor fails to keep in effect at all times insurance coverage as herein provided, the State may, in addition to any other remedies it may have, terminate this contract upon occurrence of such event.

C. Worker's Compensation Insurance.

Contractor shall provide Worker's Compensation Insurance with Waiver of Subrogation in favor of the State of California. Employer's liability shall be not less than \$1,000,000.00. The following clause should be included: "Waiver of Subrogation in favor of the State of California or in favor of CAL FIRE:" By signing this Agreement, the Contractor hereby warrants that it carries Workers' Compensation Insurance on all of its employees who will be engaged in the performance of this Agreement. If Staff provided by the Contractor is defined as independent contractors, this clause does not apply.

D. Commercial Automobile Insurance on Owned, Hired, and/or Non-Owned vehicles.

Contractor shall provide Commercial Automobile Insurance on Owned, Hired, and/or Non-Owned vehicles of not less than \$1,000,000.00 policy.

2. Regulations.

- A. Contractor shall observe and comply with all federal, state, city, and county laws, rules or regulations affecting the work. Any work done that does not comply with any laws, rules, or regulations will be remedied at the Contractor's expense.
- B. Contractor shall cooperate with the Department of Forestry and Fire Protection (CAL FIRE) authorities and shall observe and comply with all regulations presently in force on Department of Forestry and Fire Protection grounds.
- C. The PURCHASER, in all activities under or pursuant to this Agreement, as well as in handling, reselling or otherwise dealing with respect to the timber and other material realized by the PURCHASER by reason of this Agreement, whether such timber and other material is in its original form or in a changed form, agrees to comply in all respects with all lawful acts, rules, regulations and directions of any legislative, executive, administrative or judicial body or officer exercising any power of regulation or supervision with respect to such matters and whether arising out of the provisions of this Agreement or otherwise.
- D. The PURCHASER shall comply with all applicable State Safety Orders, Title 8, California Code of Regulations.
- E. The PURCHASER and PURCHASER's employees, agents, contractors and subcontractors shall comply with the attached Digest of Laws Related to Association with Prison Inmates, Exhibit F.
- F. No provision of this Agreement shall authorize the PURCHASER or PURCHASER's agents or servants to act as an officer, agent, or employee of the STATE.
- G. If the PURCHASER breaches any of the provisions of this Agreement, the STATE may serve written notice of such breach upon the PURCHASER, and thereupon the STATE may suspend the operations of the PURCHASER hereunder until such time as such breach is remedied, and if such breach is not remedied within ten days, the STATE may, at its option, without further notice, terminate this Agreement.

3. License and Permits.

- A. The Contractor shall be an individual or firm currently licensed to do business in California and shall obtain at his/her expense all license(s) and permit(s) required by law for accomplishing any work required in connection with this contract. In the event the Contractor fails to keep in effect at all times all required license(s) and permit(s), the State may, in addition to any other remedies it may have, terminate this contract upon occurrence of such event.
- B. If you are a Contractor located within the State of California, a business license from the city/county in which you are headquartered is necessary however, if you are a corporation, a copy of your incorporation documents/letter from the Secretary of State's Office can be submitted. If you are a Contractor outside the State of California, you will need to submit to the California Department of Forestry and Fire Protection Contracts Unit a copy of your business license or incorporation papers for your respective State showing that your company is in good standing in that State.

4. Performance Bond.

As further guarantee of a faithful performance of the conditions of this Agreement, the PURCHASER delivers herewith a faithful performance bond, or approved alternate form of security, satisfactory to the STATE in the sum of \$90,000. Upon satisfactory completion of all timber harvesting activities, the PURCHASER may request a one-time reduction of this security to an amount determined by the STATE to be sufficient to cover all remaining provisions of this Agreement.

Alternate forms of security in lieu of a performance bond are:

- A. Certificate of deposit with the California Department of Forestry and Fire Protection as payee, issued by a bank or similar financial institution which is a member of the Federal Reserve System or is insured by the Federal Deposit Insurance Corporation.
- B. Irrevocable letter of credit issued by a bank or financial institution which is a member of the Federal Reserve System or is insured by the Federal Deposit Insurance Corporation.

All bonds, letters of credit, or certificates of deposit, must be in a form acceptable to the STATE.

The PURCHASER agrees that all monies deposited and the faithful performance bond, or security, delivered under this Agreement may, upon failure on the PURCHASER's part to fulfill all and singular the requirements herein set forth or made a part hereof, may be retained by the STATE to be applied as far as may be to the satisfaction of the PURCHASER's obligations assumed hereunder, without prejudice whatever to any other rights and remedies of the STATE. As soon as the STATE determines that security for the performance of the terms of this Agreement or provisions for the settlement of claims or for damages incident thereto is no longer necessary to be retained or made, any balance of the initial deposit that may be left after applying it to any payment due or owing will be returned to the PURCHASER.

5. Camp Access Instructions

Individuals who are not employees of the California Department of Corrections and Rehabilitation (CDCR) or the California Department of Forestry and Fire Protection (CAL FIRE), but who are working in and around inmates who are incarcerated within California's camps, are to be apprised of the laws, rules and regulations governing conduct in associating with prison inmates. The following is a summation of pertinent information when non-departmental employees come in contact with prison inmates.

By signing this contract, the Contractor agrees that if the provisions of the contract require the Contractor to enter a camp, the Contractor and any employee(s) and/or subcontractor(s) shall be made aware of and shall abide by the following laws, rules and regulations governing conduct in associating with prison inmates:

- A. Contractor, contractor's employee(s) and/or subcontractor(s) shall observe all security rules and regulations and comply with all instructions given by institutional authorities.
- B. Contractor and contractor's employee(s), and/or subcontractor(s) must complete and submit a Camp Access Clearance Form prior to providing services. This form must be completed for all persons entering the facility a minimum of ten (10) working days prior to commencement of service. Information may be submitted to the Contract Manager or their designee. Form may be subject to a CDCR California Law Enforcement Telecommunications System (CLETS) check. This check will include Department of Motor Vehicles, Wants and Warrants, and Criminal History checks.
- C. All persons entering the facility must have a valid state driver's license or photo identification card on their person.
- D. All persons entering into a camp consent to search of their person, property or vehicle at any time. Refusal by individuals to submit to a search of their person, property, or vehicle may be cause for denial of access to the premises.
- E. It is illegal for an individual who has been previously convicted of a felony offense to enter into camps without the prior approval of the Warden. It is also illegal for an individual to enter onto these premises for unauthorized purposes or to refuse to leave said premises when requested to do so. Failure to comply with this provision could lead to prosecution.
- F. Encouraging and/or assisting prison inmates to escape are a crime. It is illegal to bring firearms, deadly weapons, explosives, tear gas, drugs or drug paraphernalia on camp premises. It is illegal to give prison inmates firearms, explosives, alcoholic beverages, narcotics, or any drug or drug paraphernalia, including cocaine or marijuana.

- G. It is also illegal to give or take letters from inmates without the authorization of the Warden. It is also illegal to give or receive any type of gift and/or gratuities from prison inmates.
- H. In an emergency situation the visiting program and other program activities may be suspended.
- I. CDCR does not recognize hostages for bargaining purposes. CDCR has a "NO HOSTAGE" policy and all prison inmates, visitors, and employees shall be made aware of this.
- J. For security reasons, while on camp grounds, Contractor, contractor's employee(s) and/or subcontractor(s) shall be professionally and appropriately dressed in clothing distinct from that worn by inmates at the camp. Visitors must not wear clothing that in any way resembles state issued prison inmate clothing. Specifically orange/red/yellow/white/chartreuse jumpsuits and/or yellow rainwear shall not be worn onto camp grounds, as this is inmate attire.
- K. Unless otherwise directed by the entrance gate officer and/or Contract Manager, the contractor, contractor's employee(s) and/or subcontractor(s) shall enter the camp through the main entrance gate and park private and nonessential vehicles in the designated visitor's parking lot. Contractor, contractor's employees and subcontractors shall remove the keys from the ignition when outside the vehicle and all unattended vehicles shall be locked and secured while on institution grounds.
- L. Gate clearance may be denied for the following reasons: Individual's presence in the camp presents a serious threat to security, individual has been charged with a serious crime committed on institution property, inadequate information is available to establish positive identity of prospective individual, and/or individual has deliberately falsified their identity.

CAMP ACCESS CLEARANCE FORM

The following information is required of all contractor employees who will be on the property of a CDCR/CAL FIRE Conservation Camp. All applications will be processed for approval.

Name of Company	
Employee	
Date of Birth	
Birth Location & State	
Employee Driver's License	
Social Security Number	
Signature	
Date	

6. SB/DVBE Activity Reports

The Contractor is required to furnish the Department with reports of SB and/or DVBE subcontractor activity. Reports are to be made on a semi-annual basis and must identify the subcontractor, the services performed or commodities used and the total paid to the subcontractor during the period reported. A final activity report is to be submitted prior to the contract expiration date. If multiple SB and/or DVBE subcontractors are providing services or commodities, the Contractor must furnish individual reports for each SB and/or DVBE used.

Reports are due on June 15th and November 1st for each year the contract is in place. At the Department's request, the Contractor shall submit copies of the SB and/or DVBE subcontractor's paid invoices issued for that semi-annual reporting period or final report.

If the Contractor fails to furnish the required reports, the Department may withhold final payment until the Contractor provides the required reports and, when requested by the Department, copies of paid invoices.

Final reports must be received by the Department at least 14 days prior to the contract expiration date.

Reports shall be made using the Small Business and Disabled Veteran Business Enterprise Activity Report form, Exhibit E, Attachment 1. All reports shall be made to the Department of Forestry and Fire Protection's SB/DVBE Advocate as follows:

By mail to:

Department of Forestry and Fire Protection
Business Services Office
Attn: SB/DVBE Advocate
P.O. Box 944246
Sacramento, CA 94244-2460

7. Contractor Certification of Payment to Small Business and DVBE Subcontractor(s)

- A. If for this Contract, Contractor made a commitment to achieve small business participation, then Contractor must within 60 days of receiving final payment under this contract (or within such other time period as may be specified elsewhere in this contract) report to the awarding department the actual percentage of small business participation that was achieved (Gov. Code §14841)
- B. If for this Contract, Contractor made a commitment to achieve disabled veteran business enterprise (DVBE) participation, the Contractor must within 60 days of receiving final payment under this Contract (or within such other time period as may be specified elsewhere in this Contract) certify in a report to the awarding department: (1) the total amount the prime Contractor received under the Contract; (2) the name and address of the DVBE(s) that participated in the performance of the Contract; (3) the amount each DVBE received from the prime Contractor; (4) that all payments under the Contract have been made to the DVBE; and (5) the actual percentage of DVBE participation that was achieved. A person or entity that knowingly provides false information shall be subject to a civil penalty for each violation not less than \$2,500 and not to exceed \$25,000. (Military & Veterans Code §999.5(d); Govt. Code §14841)

Contractor Certification must be made using the Department's "Small Business (SB) and Disabled Veteran Business Enterprise (DVBE) Subcontractor Payment Certification" form on Exhibit E, Attachment 1.

SMALL BUSINESS (SB) AND DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) SUBCONTRACTOR PAYMENT CERTIFICATION

As Contractor of record for the Department of Forestry and Fire Protection, Contract number _____, I certify, in accordance with Government Code 14841 and Military and Veteran Code § 999.5, that pursuant to the terms and conditions of the contract, all payments have been made to the Small Business or DVBE firm(s) listed below for commodities or services rendered as the SB or DVBE subcontractor(s) of record. I understand certification must be made to the Department of Forestry and Fire Protection within 60 days of receiving final payment under this Agreement. I further understand and acknowledge that falsification of this Certification may result in the imposition of civil or criminal penalties for not less than \$2,500 or more than \$25,000 for each violation.

Please copy this form to include as many Small Businesses or DVBE firms as necessary. Authorized signatures and information are required on each separately submitted form. Return to: Department of Forestry and Fire Protection, Business Services Attn: West Ramsey, SB/DVBE Advocate, P.O. Box 944246, Sacramento, CA 94244-2460

SMALL BUSINESS/DVBE SUBCONTRACTOR INFORMATION

Contract Firm Name			
Name of Firm Representative			
Title			
	Phone:	Fax:	
Firm Address	Street:		
	City:	State:	Zip:
Contract Number			
Total Amount Received Under this Contract	\$	Date Final Payment Received: / /	

SMALL BUSINESS/DVBE SUBCONTRACTOR INFORMATION

SB/DVBE Subcontractor	Street Address	City	State	Zip	Amount Paid	Participation Achieved
						%
						%
						%
						%
						%

Printed Name		Signature:	
Title:		Report Date:	

DIGEST OF LAWS RELATED TO ASSOCIATION WITH PRISON INMATES

The sale area lies in the vicinity of Parlin Conservation Camp, a minimum-security California Department of Corrections prison facility. All persons entering the Conservation Camp or the sale area are to be familiar with the following:

1. It is a felony for anyone to assist inmates to escape. Bringing firearms, deadly weapons, explosives, or tear gas onto prison grounds, or giving inmates firearms, weapons, explosives, liquor, cocaine or other narcotics, or any kind of drugs, including marijuana, is a felony.
2. Giving letters to inmates or taking letters out for inmates is a misdemeanor. Additionally, do not accept from, nor deliver to, an inmate any message or package.
3. Giving gifts or presents to inmates, or accepting gifts or presents from inmates, is a misdemeanor.
4. Do not permit former inmates or persons of disreputable character to associate with inmates.
5. Do not allow any inmate to use a telephone or other communications device.
6. Do not allow any person not associated with the camp program or work project to associate with inmates or interfere with inmate activity. Visitors must conform to rules stipulated by the person in charge of custody.
7. Do not in any way contact or communicate with families or known associates of inmates for any purpose.
8. No person shall strike or lay hands on an inmate unless it be in defense of himself or unless it be necessary to prevent serious injury to person or property.
9. All persons should avoid becoming involved in the personal affairs of inmates or former inmates.
10. Do not photograph nor allow anyone to photograph inmates, unless permission is obtained in accordance with the Department of Corrections procedures.
11. Refusal of visitors to submit to search and inspection of their person and of vehicles may be cause for denial of access.